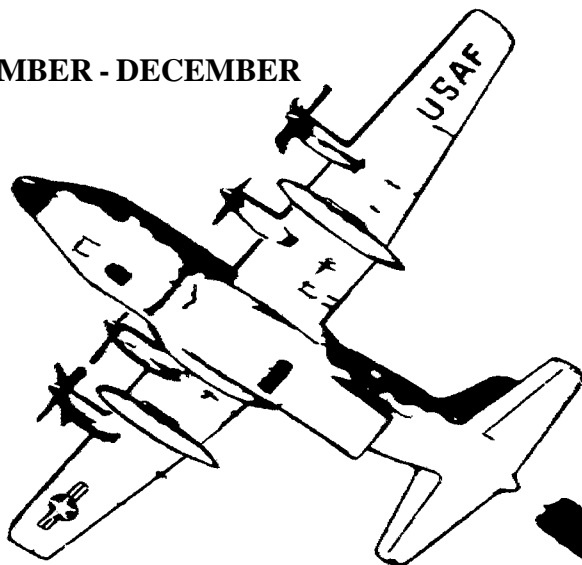


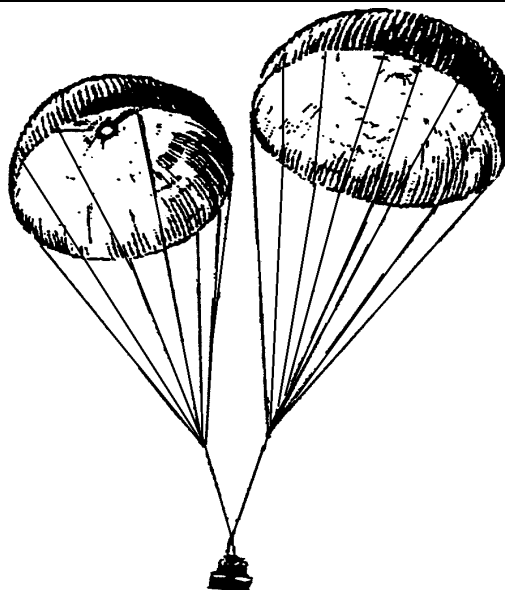
SEPTEMBER - DECEMBER

VOLUME III 1998



TRIENNIAL

**AIRDROP REVIEW
AND
MALFUNCTION/SAFETY
ANALYSIS**



PREPARED BY
THE US ARMY QUARTERMASTER SCHOOL
FORT LEE, VIRGINIA 23801-1502

AIRBORNE CREED

I am an Airborne trooper! A paratrooper!

I jump by parachute from any plane in flight. I volunteered to do it, knowing well the hazards of my choice.

I serve in a mighty Airborne Force—famed for deeds in war—renowned for readiness in peace. It is my pledge to uphold its honor and prestige in all I am—in all I do.

I am an elite trooper—a sky trooper—a shock trooper—a spearhead trooper. I blaze the way to far-flung goals—behind, before, above the foe's front line.

I know that I may have to fight without support for days on end. Therefore, I keep mind and body always fit to do my part in any airborne task. I am self-reliant and unafraid. I shoot true, and march fast and far. I fight hard and excel in every art and artifice of war.

I never fail a fellow trooper. I cherish as a sacred trust the lives of men with whom I serve. Leaders have my fullest loyalty, and those I lead never find me lacking.

I have pride in the Airborne! I never let it down!

In peace, I do not shirk the dulllest duty nor protest the toughest training. My weapons and equipment are always combat ready. I am neat of dress—military in courtesy—proper in conduct and behavior.

In battle, I fear no foe's ability, nor underestimate his prowess, power and guile. I fight him with all my might and skill—ever alert to evade capture or escape a trap. I never surrender, though I be the last.

My goal in peace or war is to succeed in any mission of the day—or die, if needs be, in the try.

I belong to a proud and glorious team—the Airborne, the Army, my Country. I am its chosen pride to fight where others may not go—to serve them well until the final victory.

*I am a trooper of the sky! I am my Nation's best!
In peace and war I never fail. Anywhere, anytime, in anything—
I am AIRBORNE!*

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PREFACE

The airdrop review and malfunction/safety analysis is published by the US Army Quartermaster School in hopes that by “passing the word” the malfunction rate within the Armed Forces may be minimized. The review and analysis in this issue covers the period 1 September 1998 - 31 December 1998.

POC AND MAILING ADDRESS

The POC for Airdrop Malfunction Reports, Monthly Airdrop Summary Reports, and any other information concerning the Airdrop Review and Malfunction/Safety Analysis is Mr. Roger Hale. All correspondence for the above reports and analysis should be addressed to:

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1010 SHOP ROAD
FORT LEE VA 23801-1502**

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ATTN MR ROGER HALE
USA QUARTERMASTER CENTER AND SCHOOL
1010 SHOP ROAD
FORT LEE VA 23801-1502**

REPORTS AND ANALYSES

The Malfunction Review Board met at Fort Lee, Virginia on 24 - 25 February 1999. A breakdown of the areas in which malfunctions occurred from 1 September through 31 December 1998 follows:

<u>CATEGORY</u>	<u>QUANTITY</u>
Containers/CRRC	21
Platforms	
LVAD	15
Personnel	22

All DD Forms 1748-2 (Airdrop Malfunction Report (Personnel-Cargo)) are reviewed, and any identifying information is removed. Block 24 is annotated to include both Army and Air Force references if only one is given. No grammatical editing is done to the reports.

CARGO MALFUNCTION REPORTS AND ANALYSIS

TAR&M/SA VOL III

I. GENERAL				
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C-130	5. ACFT SER NO.
6. OPERATION/EXERCISE		7. DZ AND LOCATION	8. DATE AND TIME	
9. ACFT ALTITUDE (Feet) N/A	10. ACFT SPEED (Knots) N/A	11. DZ ELEVATION (Feet) N/A	12. SURFACE WINDS (Knots) N/A	13. VISIBILITY (Feet/Miles) N/A

III. CARGO				
23. TYPE LOAD AND WEIGHT Heavy Equipment 10,000 Lbs	24. RIGGED IAW (TM/TO/NAVAIR No.) FM 10-500-2/ TO 13C7-1-5	25. AERIAL DELIVERY SYSTEM USED		
		DUAL RAIL	CDS RELEASE GATE	OTHER (Explain)
		NO. PLATFORMS 2	NO. CONTAINERS	
26. TYPE PLATFORM/AIR-DROP CONTAINER 16-Foot Type V	27. TYPE PARACHUTE AND NUMBER G-11B (2)	28. SIZE EXTRACTION/RELEASE PARACHUTE 22-Foot	29. LENGTH OF REEFING LINE	30. POSITION OF LOAD IN AIRCRAFT 1 of 2

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)

At preslowdown checks, I attempted to remove left hand locks. The sequential handle would not unlock lock number 11. Locks forward of 11 came out. I tried recycling left hand locks again, number 11 still would not come out. Next step I attempted to use the simul handle. After a sustained pull, the simul handle worked very easily. At that point I knew something broke. Being on the preslowdown checklist with the doors still closed, I informed the pilot of the situation, the pilot called "no drop". I applied restraint and prepared to land.

32. CAUSE OF MALFUNCTION/FAILURE (If more space is needed, continue on reverse.)

Upon landing, we left the airdrop load rigged. No one wanted to look at it being the duty hours were over. After removing the short rail section cover on the left side, it was obvious where the simul handle connected to the left hand lock number 11. The cast white metal was broken completely in half. There was also a burr into the lock itself which I felt was due to the load shifting around in the plane.

CONTINUED ON NEXT PAGE

ANALYSIS: 1

WHAT WAS THE MALFUNCTION?

Aircraft dual rail equipment failure. The bar connecting the body to the lock bottom broke.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

1. Material failure. The aircraft was new in 94 and did not have extended use.
2. Improper parts were used.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

Aircraft maintenance inspection criteria and dual rail qualification needs to be restaffed.

TAR&M/SA VOL III

I. GENERAL				
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C-141	5. ACFT SER NO.
6. OPERATION/EXERCISE		7. DZ AND LOCATION	8. DATE AND TIME	
9. ACFT ALTITUDE (Feet) 800 AGL	10. ACFT SPEED (Knots) 150 KCAS	11. DZ ELEVATION (Feet) 1505	12. SURFACE WINDS (Knots) 360 @ 06	13. VISIBILITY (Feet/Miles) 7 + Miles

III. CARGO				
23. TYPE LOAD AND WEIGHT Unilateral Training Load 3265 Lbs	24. RIGGED IAW (TM/TO/NAVAIR No.) FM 10-512/ TO 13C7-1-8 Chapter 11	25. AERIAL DELIVERY SYSTEM USED		
		DUAL RAIL	CDS RELEASE GATE	OTHER (Explain)
		NO. PLATFORMS 1	NO. CONTAINERS	
26. TYPE PLATFORM/AIR-DROP CONTAINER 8-Foot Type V	27. TYPE PARACHUTE AND NUMBER G-12E (2)	28. SIZE EXTRACTION/RELEASE PARACHUTE 15-Foot Ringslot	29. LENGTH OF REEFING LINE	30. POSITION OF LOAD IN AIRCRAFT 2 of 2
31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.) <p>This was a two platform sequential airdrop. The first platform exited the aircraft without incident. After the first platform exited and elongated the extraction line for the second platform, the first platform was in an almost inverted position. When the extraction line tightened and the Type IV link safety line broke, the Type IV link struck the end of the platform. Upon impact, the pin of the Type IV link pulled out of the permanent side of the link and the extraction line separated from the link. The parachute was still attached to the previous load and the line trailed from the aircraft. The force never overrode the right hand locks of the second load, and it stayed in the aircraft. It was evident to the aircraft loadmasters that the extraction parachute had separated from the extraction line, they called malfunction, ran the checklist, and cut the extraction line without incident. The Type IV link and the 160-foot extraction line were destroyed.</p>				

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32. CAUSE OF MALFUNCTION/FAILURE (If more space is needed, continue on reverse.)

The first platform was inspected on the drop zone. The extraction parachute was still attached to the forward end with the Type IV connector link still attached. The bag closing ties were broken and the parachute was out of the deployment bag. The four (double ticket no. 5) stabilization ties were still intact, as was the (triple 80 pound) breakcord tie. The Type IV link had a bright mark on it indicating an impact and the platform had a dent in it matching the same dimensions as the mark on the link. The extraction line was recovered with the sleeve of the Type IV link still in it. With this information and after interviewing the crew and reviewing the videotape of the drop from the drop zone, it was determined, as stated above, that the Type IV link struck the platform causing the malfunction. As a contributing factor, the Type IV link was obsolete according to a safety of use message SOU-MES-04-88 and should have been out of service in 1988.

ANALYSIS: 2

WHAT WAS THE MALFUNCTION?

1. Type IV connector link failed.
2. Extraction parachute separated from the extraction line.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

The Type IV connector link could have been outdated. The link striking the platform could have caused it to break.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

1. Use 2-point link in place of Type IV link
2. Type IV should be padded when used.

TAR&M/SA VOL III

I. GENERAL				
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C-130	5. ACFT SER NO.
6. OPERATION/EXERCISE		7. DZ AND LOCATION	8. DATE AND TIME	
9. ACFT ALTITUDE (Feet) 1200	10. ACFT SPEED (Knots) 130	11. DZ ELEVATION (Feet)	12. SURFACE WINDS (Knots) 0-3	13. VISIBILITY (Feet/Miles) Clear/1

III. CARGO				
23. TYPE LOAD AND WEIGHT M198 Howitzer 23,340 Lbs	24. RIGGED IAW (TM/TO/NAVAIR No.) FM 10-527/ TO 13C7-10-191 Chapter 5	25. AERIAL DELIVERY SYSTEM USED		
		DUAL RAIL	CDS RELEASE GATE	OTHER (Explain)
		NO. PLATFORMS 1	NO. CONTAINERS	
26. TYPE PLATFORM/AIR-DROP CONTAINER Type V	27. TYPE PARACHUTE AND NUMBER G-11C (5)	28. SIZE EXTRACTION/RELEASE PARACHUTE 28-Foot	29. LENGTH OF REEFING LINE	30. POSITION OF LOAD IN AIRCRAFT 1 of 1
<p>31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)</p> <p>Aircraft was first in a 3 ship mission. During approach, the extraction parachute deployed and then broke free of the aircraft. The load gravity fed out of the aircraft never transitioning into main deployment phase. The load impacted the ground 350 yards from the HEPI. The load was completely destroyed.</p>				
<p>32. CAUSE OF MALFUNCTION/FAILURE (If more space is needed, continue on reverse.)</p> <p>According to statements by the aircraft crew, the loading of the platform, startup, taxi, takeoff, route and run-in were "uneventful". The loadmasters stated that there was no normal jerk of the opening shock from the extraction parachute felt, but the locks were overcome and the platform "slowly" started to roll out of the aircraft. Once the platform was free of the aircraft, the crew went into normal "completion of drop" recovery operations since they were unaware there was a malfunction. The load was inspected on site, the EFTC link was released and the recovery parachutes were still in their bags with no indication of deployment. The air items were recovered and returned to the rigging facility. Inspection of the extraction line (60 foot 31p) revealed that all plies were broken and burned with multiple abraisions along all plies from the slings connection point on the load to 58 inches down. The line bag panels exterior had melted scrape marks, burns and cuts on them and on the lacing loops where the line extends towards the load. The 1/2-inch tubular webbing and cotton muslin that secure the line to the panel were still in place with burns on them. The extraction parachute had a 2-inch stitching separation at a radial seam (line 36 section 5), no other damage. The extraction link plates were found to be flush and tight to the spaces. The severe burns and 2-3 inch chaffing</p>				

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burns on portions of the extraction line at the load attachment end are indicators of extreme sudden force being placed on the nylon as it was pulled from whatever it may have been wedged between. During inspection of the aircraft, pieces of green nylon fibers and green Pressure Sensitive Adhesive (PSA) tape "100 MPH tape" were found in the center of the aircraft floor even with the paratroop doors and under the rollers. There was no damage to any rollers or brackets. The Air Force tested the right hand locks and two were found to fail the maintenance test. Lock number 7 had slippage, lock number 9 was out of tolerance (tolerance @2.0 is 48-64, lock tested @66.5). On locks 7, 8, and 9 the "fingers" were not located between the rollers. The "finger" on lock number 6 was between the rollers. The malfunction was caused by the extraction line getting wedged between the platform and rollers, possibly caused by a free rolling/floating platform. During elongation and deployment of the extraction line and parachute, the plies were burned and torn allowing the extraction parachute and extraction line to separate from the load and the load exited to free-drop to the ground.

ANALYSIS: 3

WHAT WAS THE MALFUNCTION?

Extraction line broke.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

1. Loose platform. 3 of 4 locks released early and platform rolled over extraction line trapping it. When the extraction force pulled the line out, it cut the line.
2. Material failure of extraction line.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

1. Calibrate locks being used for aft restraint/right side.
2. Maintenance needs to reinstate the lock check.
3. Insure all air items are properly inspected prior to use.

TAR&M/SA VOL III

I. GENERAL				
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C-130EH(K)	5. ACFT SER NO.
6. OPERATION/EXERCISE		7. DZ AND LOCATION	8. DATE AND TIME	
9. ACFT ALTITUDE (Feet) N/A	10. ACFT SPEED (Knots) N/A	11. DZ ELEVATION (Feet) N/A	12. SURFACE WINDS (Knots) N/A	13. VISIBILITY (Feet/Miles) N/A

III. CARGO				
23. TYPE LOAD AND WEIGHT Sequential HMMWV 10,000 Lbs each	24. RIGGED IAW (TM/TO/NAVAIR No.) FM 10-517/ TO 13C7-1-111	25. AERIAL DELIVERY SYSTEM USED		
		<input checked="" type="checkbox"/> DUAL RAIL	<input type="checkbox"/> CDS RELEASE GATE	OTHER (Explain)
		NO. PLATFORMS 2	NO. CONTAINERS	
26. TYPE PLATFORM/AIR-DROP CONTAINER 16-Foot Type V	27. TYPE PARACHUTE AND NUMBER G-11B (2)	28. SIZE EXTRACTION/RELEASE PARACHUTE 22-Foot Ring Slot	29. LENGTH OF REEFING LINE	30. POSITION OF LOAD IN AIRCRAFT 1 of 2
31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.) At preslowdown checks, I attempted to remove left hand locks. The sequential handle would not unlock lock number 11. Locks forward of 11 came out. I tried recycling left hand locks again. Number 11 still would not come out. Next step I attempted to use the simul handle. After a sustained pull, the simul handle worked very easily. At that point I knew something broke. Being on the preslowdown checklist with the doors still closed, I informed the pilot of the situation. The pilot called "no drop". I applied additional restraint and landed.				
32. CAUSE OF MALFUNCTION/FAILURE (If more space is needed, continue on reverse.) The bar connecting the draw bar to the lock was broken. Maintenance removed and replaced the dual rail section completely and the aircraft dropped HEs that night. There is no inspection criteria for loadmasters on this part of the lock. The locks are inspected by maintenance in ISO dock.				

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ANALYSIS: 4

WHAT WAS THE MALFUNCTION?

Equipment failure. Bar connecting the body to lock bottom broke.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

Material failure. New aircraft (94 model).

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

Maintenance inspection criteria needs to be changed to identify lock problems.

TAR&M/SA VOL III

I. GENERAL				
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C-17	5. ACFT SER NO.
6. OPERATION/EXERCISE		7. DZ AND LOCATION	8. DATE AND TIME	
9. ACFT ALTITUDE (Feet) 850 MSL	10. ACFT SPEED (Knots) 145	11. DZ ELEVATION (Feet) 265	12. SURFACE WINDS (Knots) N/A	13. VISIBILITY (Feet/Miles) 2 Miles

III. CARGO				
23. TYPE LOAD AND WEIGHT 8 Foot Mass Supply 3500 Lbs	24. RIGGED IAW (TM/TO/NAVAIR No.) FM 10-512/ TO 13C7-1-8	25. AERIAL DELIVERY SYSTEM USED		
		DUAL RAIL	CDS RELEASE GATE	OTHER (Explain)
		NO. PLATFORMS 2	NO. CONTAINERS	Monitor
26. TYPE PLATFORM/AIR-DROP CONTAINER Type V	27. TYPE PARACHUTE AND NUMBER 15 RS Drogue	28. SIZE EXTRACTION/RELEASE PARACHUTE 15-Foot	29. LENGTH OF REEFING LINE	30. POSITION OF LOAD IN AIRCRAFT 2

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)
 After drogue deployment, loadmaster saw the drogue at night in the monitor. He called "drogue-ok", then lost sight of the drogue. After the drogue failed to return in the monitor after a few seconds, he called malfunction and completed the malfunction procedures which include positioning the drogue jettison switch to "jettison". The ramp and door were closed and the aircraft recovered safely. No damage.

32. CAUSE OF MALFUNCTION/FAILURE (If more space is needed, continue on reverse.)
 The aircraft was inspected upon landing. The drogue monitor and IR lights passed the built in test and appeared to be working normally. The drogue has not been recovered yet because it was suspended high in the pine trees. A parachute rigger did observe the parachute from the ground and stated the parachute appeared to have functioned normally. (We are still attempting to recover the drogue parachute.) I believe due to the low illumination on the dark night and the possible low positioning of the drogue in the slipstream, that the drogue was still intact when it was jettisoned by the loadmaster. The loadmaster made a good conservative call on a training load, but this incident should be documented.

CONTINUED ON NEXT PAGE

ANALYSIS: 5

WHAT WAS THE MALFUNCTION?

Could not determine status of the deployed drogue parachute.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

Lost sight of drogue parachute.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

Loadmaster training or reposition camera or IR capability.

TAR&M/SA VOL III

I. GENERAL				
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C-17	5. ACFT SER NO.
6. OPERATION/EXERCISE		7. DZ AND LOCATION	8. DATE AND TIME	
9. ACFT ALTITUDE (Feet) 4000 MSL	10. ACFT SPEED (Knots) 230	11. DZ ELEVATION (Feet) 1505	12. SURFACE WINDS (Knots) 30 Knots	13. VISIBILITY (Feet/Miles) Clear

III. CARGO				
23. TYPE LOAD AND WEIGHT Training Load	24. RIGGED IAW (TM/TO/NAVAIR No.) FM 10-512/ TO 13C7-1-8 Chapter 11	25. AERIAL DELIVERY SYSTEM USED		
		DUAL RAIL	CDS RELEASE GATE	OTHER (Explain)
		NO. PLATFORMS 2	NO. CONTAINERS	
26. TYPE PLATFORM/AIR-DROP CONTAINER 8-Foot Type V	27. TYPE PARACHUTE AND NUMBER G-12E (2)	28. SIZE EXTRACTION/RELEASE PARACHUTE Ringslot 15 Foot	29. LENGTH OF REEFING LINE	30. POSITION OF LOAD IN AIRCRAFT
<p>31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)</p> <p>Drogue parachute was rigged in the left PDM for the second drop of a single heavy equipment platform. At the slowdown check on the first pass, the doors opened and the loadmaster looked up and saw the number two platform drogue parachute and drogue line exit the aircraft and deploy. Drogue was not attached to the second platform and drogue line was secured to the tiedown ring at row B, FS 1188 with 1/4-inch cotton webbing and secured in the 9 retaining clips. No damage to aircraft was found.</p>				
<p>32. CAUSE OF MALFUNCTION/FAILURE (If more space is needed, continue on reverse.)</p> <p>Maintenance personnel inspected the left PDM and no discrepancy was found. The loadmaster rigged the drogue line IAW C-17-9, section 7B-20, para 9 and no other cause was noted. However, a possible conclusion was discussed. Loadmaster stated he had left some slack in the drogue line between the #9 retaining clip and the tiedown ring at FS 1188. This slack may have allowed the line to become caught in the windblast around the ramp area and then the slipstream. This removed it from the clips and pulled the drogue parachute from the PDM.</p>				

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ANALYSIS: 6

WHAT WAS THE MALFUNCTION?

The drogue parachute rigged in the left parachute deployment mechanism was prematurely deployed. It was not connected to the load.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

Drogue line not properly stowed.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

1. Stow line correctly.
2. Do not rig drogues for further drops until required.

TAR&M/SA VOL III

I. GENERAL				
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C-17	5. ACFT SER NO.
6. OPERATION/EXERCISE		7. DZ AND LOCATION	8. DATE AND TIME	
9. ACFT ALTITUDE (Feet) 800 AGL	10. ACFT SPEED (Knots) 145HCAS	11. DZ ELEVATION (Feet) 1532	12. SURFACE WINDS (Knots) Unknown	13. VISIBILITY (Feet/Miles) Clear

III. CARGO				
23. TYPE LOAD AND WEIGHT Type V Mass Supply 3150 LBS	24. RIGGED IAW (TM/TO/NAVAIR No.) FM 10-512/ TO 13C7-1-8 Chapter 11	25. AERIAL DELIVERY SYSTEM USED		
		DUAL RAIL	CDS RELEASE GATE	OTHER (Explain)
		NO. PLATFORMS 2	NO. CONTAINERS	
26. TYPE PLATFORM/AIR-DROP CONTAINER Type V	27. TYPE PARACHUTE AND NUMBER G-12E (2)	28. SIZE EXTRACTION/RELEASE PARACHUTE 15-Foot Ringslot	29. LENGTH OF REEFING LINE	30. POSITION OF LOAD IN AIRCRAFT 1 of 2
31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.) Upon postdrop inspection, it was noted that 1 apex line of the 15-foot drogue was broken. This was a May 92 parachute put in service in Oct 97 and had 5 drops on it. Drogue was inflated behind aircraft for 16 seconds.				
32. CAUSE OF MALFUNCTION/FAILURE (If more space is needed, continue on reverse.) Airspeed in addition to time in airstream is the suspected cause.				

CONTINUED ON NEXT PAGE

ANALYSIS: 7

WHAT WAS THE MALFUNCTION?

Drogue parachute apex line failed.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

1. Drogue parachute deployed too long.
2. Drogue parachute material failure. The drogue was new (5 drops).
3. Drogue parachute not strong enough to withstand forces.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

1. Waiting on new 15-foot extraction parachutes.
2. Design and procure new 15-foot parachute.

TAR&M/SA VOL III

I. GENERAL				
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C-17	5. ACFT SER NO.
6. OPERATION/EXERCISE		7. DZ AND LOCATION	8. DATE AND TIME	
9. ACFT ALTITUDE (Feet) N/A	10. ACFT SPEED (Knots) 145 KTS	11. DZ ELEVATION (Feet) N/A	12. SURFACE WINDS (Knots) N/A	13. VISIBILITY (Feet/Miles) IMC

III. CARGO				
23. TYPE LOAD AND WEIGHT Multiple Platforms	24. RIGGED IAW (TM/TO/NAVAIR No.) N/A	25. AERIAL DELIVERY SYSTEM USED		
		DUAL RAIL	CDS RELEASE GATE	OTHER (Explain)
		NO. PLATFORMS	NO. CONTAINERS	CVR
26. TYPE PLATFORM/AIR-DROP CONTAINER Type V	27. TYPE PARACHUTE AND NUMBER G-11B (2)	28. SIZE EXTRACTION/RELEASE PARACHUTE 22-Foot RS	29. LENGTH OF REEFING LINE	30. POSITION OF LOAD IN AIRCRAFT
31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.) The crew no-dropped due to a malfunction of the airdrop sequencing computer system for the right parachute deployment mechanism (PDM). The PDM would not "arm" in flight.				
32. CAUSE OF MALFUNCTION/FAILURE (If more space is needed, continue on reverse.) The PDM functioned normally the previous day and on the previous lift. No deficiencies were found during the post flight inspection by the Boeing engineers or Wing Tactics. The proximity sensor was within limits. It armed and functioned correctly on the ground.				

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ANALYSIS: 8

WHAT WAS THE MALFUNCTION?

C-17 computer would not arm.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

Aircraft equipment failure.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

Identify computer logic faults and fix software.

TAR&M/SA VOL III

I. GENERAL				
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C17	5. ACFT SER NO.
6. OPERATION/EXERCISE		7. DZ AND LOCATION	8. DATE AND TIME	
9. ACFT ALTITUDE (Feet) N/A	10. ACFT SPEED (Knots) 145 KTS	11. DZ ELEVATION (Feet) N/A	12. SURFACE WINDS (Knots) N/A	13. VISIBILITY (Feet/Miles) IMC

III. CARGO				
23. TYPE LOAD AND WEIGHT Multiple Platforms	24. RIGGED IAW (TM/TO/NAVAIR No.) N/A	25. AERIAL DELIVERY SYSTEM USED		
		DUAL RAIL	CDS RELEASE GATE	OTHER (Explain)
		NO. PLATFORMS	NO. CONTAINERS	CVR
26. TYPE PLATFORM/AIR-DROP CONTAINER Type V	27. TYPE PARACHUTE AND NUMBER G-11B (2)	28. SIZE EXTRACTION/RELEASE PARACHUTE 22-Foot RS	29. LENGTH OF REEFING LINE	30. POSITION OF LOAD IN AIRCRAFT
31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.) The loadmaster could not see the drogue parachute in the monitor in IMC. Then he called "malfunction" and positioned the drogue jettison switch to jettison.				
32. CAUSE OF MALFUNCTION/FAILURE (If more space is needed, continue on reverse.) The airdrop was conducted in the weather with a 500 foot broken ceiling and an 800 foot overcast ceiling. The temperature was +14C and the dewpoint was +14. The last 3 aircraft of the 5-ship did not drop.				

CONTINUED ON NEXT PAGE

ANALYSIS: 9

WHAT WAS THE MALFUNCTION?

Could not determine status of drogue parachute.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

1. Equipment failure.
2. Atmospheric conditions interfered with camera operations.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

Insure aircraft systems have the capability to do the whole mission.
Should have infrared camera capability.

TAR&M/SA VOL III

I. GENERAL				
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C-130	5. ACFT SER NO.
6. OPERATION/EXERCISE		7. DZ AND LOCATION	8. DATE AND TIME	
9. ACFT ALTITUDE (Feet) 985 AGL	10. ACFT SPEED (Knots) 140 KIAS	11. DZ ELEVATION (Feet) 442 MSL	12. SURFACE WINDS (Knots) 242@10	13. VISIBILITY (Feet/Miles) 7 Miles

III. CARGO				
23. TYPE LOAD AND WEIGHT Heavy Equipment Training 3650 LBS	24. RIGGED IAW (TM/TO/NAVAIR No.) FM 10-500-2/ TO 13C7-1-5	25. AERIAL DELIVERY SYSTEM USED		
		DUAL RAIL	CDS RELEASE GATE	OTHER (Explain)
		NO. PLATFORMS 1	NO. CONTAINERS	
26. TYPE PLATFORM/AIR-DROP CONTAINER Type V	27. TYPE PARACHUTE AND NUMBER G-12E (2)	28. SIZE EXTRACTION/RELEASE PARACHUTE 15 Foot Ringslot	29. LENGTH OF REEFING LINE	30. POSITION OF LOAD IN AIRCRAFT 1

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)

At green light, the parachute deployed normally out of the bomb rack and was visually confirmed to be fully inflated. The load failed to extract from the aircraft so the loadmaster pulled the right hand crossover to emergency. The load still failed to extract so the loadmaster notified the pilot of the malfunction and began his emergency procedures. After applying the emergency restraint chains and just prior to tightening, the load was released and was stopped by the chains. The loadmasters cut the extraction parachute loose from the load and completed all checklists. The loadmasters noted that the load did not move at all at the time the extraction parachute opened. The loadmasters also noted that the load was now rolling aft and forward limited by the chains. This was due to the loadmaster on the handle pulling the right hand all the way to load instead of emergency. The right hand was still in load during the inspection of the aircraft after it landed.

32. CAUSE OF MALFUNCTION/FAILURE (If more space is needed, continue on reverse.)

We tested the number 9 lock. It tested out of limits low. We looked at the platform. We found nothing wrong with it. The recovered extraction parachute was in good condition, no blown panels or broken suspension lines. We even measured the distance between the vertical restraint lips on the dual rails. Nothing wrong there. That leaves me with only one other option which is the possibility that a left hand lock was still in the platform.

CONTINUED ON NEXT PAGE

ANALYSIS: 10

WHAT WAS THE MALFUNCTION?

Platform did not extract.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

Aircraft locks did not release.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

1. Insure dual rails are properly preflighted and maintained by qualified maintenance personnel.
2. Insure proper aircrew airdrop procedures are followed.

TAR&M/SA VOL III

I. GENERAL				
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT MC-130H	5. ACFT SER NO.
6. OPERATION/EXERCISE		7. DZ AND LOCATION	8. DATE AND TIME	
9. ACFT ALTITUDE (Feet) 550 AGL	10. ACFT SPEED (Knots) 142 KCAS	11. DZ ELEVATION (Feet) 614	12. SURFACE WINDS (Knots) 9/14	13. VISIBILITY (Feet/Miles) 7 Miles

III. CARGO				
23. TYPE LOAD AND WEIGHT Heavy Equipment 3200 LBS	24. RIGGED IAW (TM/TO/NAVAIR No.) FM 10-500-2/ TO 13C7-1-5	25. AERIAL DELIVERY SYSTEM USED		
		DUAL RAIL	CDS RELEASE GATE	OTHER (Explain)
		NO. PLATFORMS 1	NO. CONTAINERS	EFTC
26. TYPE PLATFORM/AIR-DROP CONTAINER Type V	27. TYPE PARACHUTE AND NUMBER G-12E (2)	28. SIZE EXTRACTION/RELEASE PARACHUTE 15-Foot Ring Slot	29. LENGTH OF REEFING LINE	30. POSITION OF LOAD IN AIRCRAFT 1 of 1
<p>31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)</p> <p>The extraction parachute released from the bomb rack and inflated normally, the right hand lock released and the load started aft. Just after the extraction phase started, the mains appeared to deploy prematurely, just outside the aircraft, which caused the platform to rotate at the aft end of the cargo ramp. This downward motion caused minor damage to the last three rollers on each of the four roller conveyors. The load impacted the drop zone with no damage.</p>				
<p>32. CAUSE OF MALFUNCTION/FAILURE (If more space is needed, continue on reverse.)</p> <p>The JAI was performed on the platform with no problems. The latch was checked and pulled on after lowering the arm and the marks were aligned. After getting the platform back to the hangar, we hooked up the three point link and rotated the arm and it released normally. After returning to the home station with the EFTC, we again tested the system with the same results. Upon further review, ADSB noted that on the cable assembly there were only 2-3 threads showing past the factory set collar compared to 7-8 threads showing on the others. When we checked the latch assembly in the locked position, you could push in on the assembly where the dot and arrow align.</p>				

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ANALYSIS: 11

WHAT WAS THE MALFUNCTION?

Main cargo parachutes prematurely deployed just outside the aircraft.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

1. Improper inspection, maintenance, and rigging of EFTC.
2. Item had been recalled by a previous message.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

1. Insure all EFTC components are rigged IAW all TMs, maintenance message advisories, and safety messages.
2. Consolidate and disseminate a new all inclusive EFTC message.
3. Insure depot stocks are maintained properly.

TAR&M/SA VOL III

I. GENERAL				
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C-141	5. ACFT SER NO.
6. OPERATION/EXERCISE		7. DZ AND LOCATION	8. DATE AND TIME	
9. ACFT ALTITUDE (Feet) 800 Feet AGL	10. ACFT SPEED (Knots) 150 KCAS	11. DZ ELEVATION (Feet) 1505	12. SURFACE WINDS (Knots) Calm	13. VISIBILITY (Feet/Miles) 7 Miles

III. CARGO				
23. TYPE LOAD AND WEIGHT Training Load 3045 Lbs	24. RIGGED IAW (TM/TO/NAVAIR No.) FM 10-512/ TO 13C7-1-8 Chapter 11	25. AERIAL DELIVERY SYSTEM USED		
		DUAL RAIL	CDS RELEASE GATE	OTHER (Explain)
		NO. PLATFORMS 1	NO. CONTAINERS	
26. TYPE PLATFORM/AIR-DROP CONTAINER 8 Foot Type V	27. TYPE PARACHUTE AND NUMBER G-12E (2)	28. SIZE EXTRACTION/RELEASE PARACHUTE 15-Foot Ringslot	29. LENGTH OF REEFING LINE	30. POSITION OF LOAD IN AIRCRAFT 1 of 1/890
<p>31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)</p> <p>Load exited aircraft normally. During the transfer to the deployment phase, parachute #238 deployed but parachute #90 only elongated. The load was in the swing when parachute #90 separated from the load and free fell fully inflated. The platform fell with increased speed but sustained no visible damage upon impact. The M-1 release parachute connector sleeve spool and the load suspension link sustained damage and are unserviceable.</p>				
<p>32. CAUSE OF MALFUNCTION/FAILURE (If more space is needed, continue on reverse.)</p> <p>The load exited normally. During the deployment phase the M-1 release was pulled to the forward position of the load and struck the front edge with the parachute connector sleeve spool. This contact allowed the parachute connector to be forced from the load suspension link allowing the parachute to free fall unattached to the load. The damage sustained by the M-1: a mushrooming of the left, upper, front, and rear corners of the load suspension link and a large gash in the parachute connector sleeve spool where it contacted the platform.</p>				

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ANALYSIS: 12

WHAT WAS THE MALFUNCTION?

The M-1 parachute release struck the load. The parachute connector came out of the upper suspension link and the parachute free fell not attached to the load.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

Improper rigging procedures allowed the M-1 to strike the load.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

Ensure proper procedures are followed.

TAR&M/SA VOL III

I. GENERAL				
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C-130	5. ACFT SER NO.
6. OPERATION/EXERCISE		7. DZ AND LOCATION	8. DATE AND TIME	
9. ACFT ALTITUDE (Feet) 1170 MSL	10. ACFT SPEED (Knots) 140	11. DZ ELEVATION (Feet) 538	12. SURFACE WINDS (Knots) 110@4	13. VISIBILITY (Feet/Miles) 10+ Miles

III. CARGO				
23. TYPE LOAD AND WEIGHT Unilateral Training Loads 3500 Lbs	24. RIGGED IAW (TM/TO/NAVAIR No.) FM 10-512/ TO 13C7-1-8 Chapter 11	25. AERIAL DELIVERY SYSTEM USED		
		DUAL RAIL	CDS RELEASE GATE	OTHER (Explain)
		NO. PLATFORMS 1	NO. CONTAINERS	
26. TYPE PLATFORM/AIR-DROP CONTAINER Type V	27. TYPE PARACHUTE AND NUMBER G-12E (2)	28. SIZE EXTRACTION/RELEASE PARACHUTE 15-Foot Ring Slot	29. LENGTH OF REEFING LINE	30. POSITION OF LOAD IN AIRCRAFT F.S. 620
31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.) Immediately after extraction and during the deployment phase, the G-12E parachutes were released from the M-1 release. One G-12E deployed, the second G-12E did not. The unilateral training load free fell to the ground.				
32. CAUSE OF MALFUNCTION/FAILURE (If more space is needed, continue on reverse.) During the investigation, the center pin of the timer mechanism was found broken which allowed premature retraction of the timer block locking keys. During in-shop JAI, after loading JAI and preslowdown checklist, timer block keys were checked and found extended.				

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ANALYSIS: 13

WHAT WAS THE MALFUNCTION?

Main cargo parachutes separated from the M-1 release during deployment.
The load free fell to the ground.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

M-1 release timer failed.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

1. Inspect timers properly.
2. Do not overuse equipment or overstress timer stem when arming.

TAR&M/SA VOL III

I. GENERAL				
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C-17	5. ACFT SER NO.
6. OPERATION/EXERCISE		7. DZ AND LOCATION		8. DATE AND TIME
9. ACFT ALTITUDE (Feet) 1100	10. ACFT SPEED (Knots) 130	11. DZ ELEVATION (Feet) 128 Feet AGL	12. SURFACE WINDS (Knots) 4	13. VISIBILITY (Feet/Miles) Unlimited

III. CARGO				
23. TYPE LOAD AND WEIGHT M966 HMMWV 9,996 LBS	24. RIGGED IAW (TM/TO/NAVAIR No.) FM 10-517/ TO 13C7-1-111	25. AERIAL DELIVERY SYSTEM USED		
		<input checked="" type="checkbox"/> DUAL RAIL	<input type="checkbox"/> CDS RELEASE GATE	OTHER (Explain) 35 K EFTC
		NO. PLATFORMS 1	NO. CONTAINERS	
26. TYPE PLATFORM/AIR-DROP CONTAINER 16-Foot Type V	27. TYPE PARACHUTE AND NUMBER G-11B (2)	28. SIZE EXTRACTION/RELEASE PARACHUTE 15-Foot Drogue 22-Foot Extraction	29. LENGTH OF REEFING LINE 16 1/2 Foot	30. POSITION OF LOAD IN AIRCRAFT 1 of 3
31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.) The 15-foot drogue parachute deployed successfully activating the extraction parachute and line bag. The extraction parachute anchored the load and the load was extracted perfectly. The main parachutes (G11s) appeared to elongate normally, but during the recovery process one of the G11s appeared to have ripped and became entangled with the other G-11. This entanglement appeared to have restricted the total inflation of the good parachute. Neither G-11B cargo parachute fully deployed, but instead fluttered behind a level and upright platform that impacted the ground and destroyed the HMMWV.				
32. CAUSE OF MALFUNCTION/FAILURE (If more space is needed, continue on reverse.) After a thorough investigation of the entire load, it was found that the G-11 that appeared to be torn had 15 broken suspension lines, damage to the cutter bracket and fire wall on #61. Damage was done to several gores approximately 20 suspension lines were torn away from the lower lateral band and the parachute also had several suspension lines fused together. Cause of damage maybe related to the location of cutter bracket #61. DOM of parachute: April 1963. Placed in service: 15 Oct 98. The other G-11 was found to have an improper				

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center tie which is located between the locking stow. The tie was not properly girth hitched around the center stow bar of the nylon G-11 bag. The tie was tied with a surgeon's knot and locking knot to the center stow bar loop, then tied a surgeon's knot and locking knot around the lines. Upon deployment the center tie broke at the point of the center stow bar loop, rather than breaking from around the suspension lines. The tie remained tied taut enough around the lines there by preventing the parachute's air channel to open and inflate. Corrective actions: Re-enforce IPs and packer's awareness of correct packing procedures and that they fully understand as well as comply with procedures.

ANALYSIS: 14

WHAT WAS THE MALFUNCTION?

G-11 parachutes became entangled preventing proper deployment.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

1. Broken suspension line.
2. Incorrect packing.
3. Incorrect location of cutter and improper center tie.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

Ensure proper packing procedures are followed.

TAR&M/SA VOL III

I. GENERAL				
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C-17	5. ACFT SER NO.
6. OPERATION/EXERCISE		7. DZ AND LOCATION	8. DATE AND TIME	
9. ACFT ALTITUDE (Feet) 750 AGL	10. ACFT SPEED (Knots) 145 Knots	11. DZ ELEVATION (Feet) 529 MSL	12. SURFACE WINDS (Knots) 1/2 Knot	13. VISIBILITY (Feet/Miles) 5 Miles

III. CARGO				
23. TYPE LOAD AND WEIGHT 32-Foot Gun Truck 19,500 Lbs	24. RIGGED IAW (TM/TO/NAVAIR No.) FM 10-517/ TO 13C7-1-111	25. AERIAL DELIVERY SYSTEM USED		
		<input checked="" type="checkbox"/> DUAL RAIL	<input type="checkbox"/> CDS RELEASE GATE	OTHER (Explain)
		NO. PLATFORMS 2	NO. CONTAINERS	
26. TYPE PLATFORM/AIR-DROP CONTAINER 32-Foot Type V	27. TYPE PARACHUTE AND NUMBER G-11B (4)	28. SIZE EXTRACTION/RELEASE PARACHUTE 15-Foot Drogue 28-Foot Extraction	29. LENGTH OF REEFING LINE 16 1/2 Foot	30. POSITION OF LOAD IN AIRCRAFT 1 of 2
31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.) According to the Air Force crew chief, no more than 5 seconds after the drogue parachute deployed, the panels on the parachute started to blowout. That is when they cut the parachute free. From the ground I did not observe any parachute trailing the aircraft, and I could not see the aircraft at least 5 minutes out.				
32. CAUSE OF MALFUNCTION/FAILURE (If more space is needed, continue on reverse.) At this time we can only conclude that the malfunction was due to material failure, but we cannot confirm that because we could not find the drogue parachute.				

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ANALYSIS: 15

WHAT WAS THE MALFUNCTION?

Failure of drogue parachute.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

Bad drogue, material failure, or drogue not strong enough.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

Procure new 15-foot parachute.

TAR&M/SA VOL III

I. GENERAL				
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C-130	5. ACFT SER NO.
6. OPERATION/EXERCISE		7. DZ AND LOCATION	8. DATE AND TIME	
9. ACFT ALTITUDE (Feet) 1100	10. ACFT SPEED (Knots) 130	11. DZ ELEVATION (Feet) 372	12. SURFACE WINDS (Knots) 5	13. VISIBILITY (Feet/Miles) 7

III. CARGO				
23. TYPE LOAD AND WEIGHT Mass CDS 4,650 Lbs	24. RIGGED IAW (TM/TO/NAVAIR No.) FM 10-500-3/ TO 13C7-1-11	25. AERIAL DELIVERY SYSTEM USED		
		DUAL RAIL	CDS RELEASE GATE	OTHER (Explain)
		NO. PLATFORMS	NO. CONTAINERS 5	CVR
26. TYPE PLATFORM/AIR-DROP CONTAINER A-22	27. TYPE PARACHUTE AND NUMBER 26-Foot High Velocity	28. SIZE EXTRACTION/RELEASE PARACHUTE	29. LENGTH OF REEFING LINE	30. POSITION OF LOAD IN AIRCRAFT 617
31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.) This was a 5 bundle mass CDS with the CVR. At green light, the gate cut normally and the load started to move aft. As the bundles reached section 3 of the CVR, the 2 forward bundles slowed from the rest with 1-3 exiting normally, #4 exited approximately 4 seconds later and #5 jammed in the aircraft. The number 4 bundle landed 30 yards off the DZ. No damage or injury.				
32. CAUSE OF MALFUNCTION/FAILURE (If more space is needed, continue on reverse.) Investigation found a 1/8 inch high x 1 inch wide x 2 inch long piece of skidboard embedded in the leading edge of section 3 (not belonging to the jammed bundle). This CVR section could be physically moved approximately 1/8-inch laterally when checked on the ground. No other problems with aircraft or procedures noted. All skidboards measured 48 x 48. Suspect the #4 bundle caught on the CVR slowing it and causing #5 to shift/cock into the CVR/rail.				

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ANALYSIS: 16

WHAT WAS THE MALFUNCTION?

One container on a mass CDS did not exit the aircraft.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

The #4 container jammed in the CVR causing the #5 container to shift/cock in the rails.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

1. Prepare skidboard IAW FM 10-500-3/TO 13C7-1-11.
2. Ensure CVR is properly installed.

TAR&M/SA VOL III

I. GENERAL				
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C-130	5. ACFT SER NO.
6. OPERATION/EXERCISE		7. DZ AND LOCATION	8. DATE AND TIME	
9. ACFT ALTITUDE (Feet) 1223 AGL	10. ACFT SPEED (Knots) 120 K (GND)	11. DZ ELEVATION (Feet) 1424	12. SURFACE WINDS (Knots) Calm	13. VISIBILITY (Feet/Miles) 7+ Miles

III. CARGO				
23. TYPE LOAD AND WEIGHT CDS 600 LBS	24. RIGGED IAW (TM/TO/NAVAIR No.) FM 10-500-3/ TO 13C7-1-11	25. AERIAL DELIVERY SYSTEM USED		
		DUAL RAIL	CDS RELEASE GATE	OTHER (Explain)
		NO. PLATFORMS	NO. CONTAINERS 1	High Velocity
26. TYPE PLATFORM/AIR-DROP CONTAINER A-22	27. TYPE PARACHUTE AND NUMBER 26-Foot High Velocity (1)	28. SIZE EXTRACTION/RELEASE PARACHUTE	29. LENGTH OF REEFING LINE	30. POSITION OF LOAD IN AIRCRAFT F.S. 495
31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.) This was a single high velocity CDS container rigged using pulley station 550 with the right-hand static line retriever. At green light the knife was slow to cut but eventually did cut and the container exited without any problems. After the drop the aircrew inspected the components and discovered the retriever cable, guillotine knife extension cable, and the 95-inch pulley strap were damaged. The crew continued with the mission and landed uneventfully back at home station. Upon investigation, the ABLE CORP retriever cable was found to be badly misformed at the point it passed through the pulley. The guillotine knife blade was found dull and jagged with the cable end frayed. Burn marks were discovered on the 95-inch pulley strap where the strap passes through the overhead litter brackets. The Type XXVI release gate has a curved cut pattern when examined flat however, when the gate is folded the cut is straight.				
32. CAUSE OF MALFUNCTION/FAILURE (If more space is needed, continue on reverse.) Suspect a dull knife caused the release gate to roll or curl up leading to the slow cut. The burn marks on the pulley strap and the fray on the guillotine knife cable point to great pressure being applied to the cable.				

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ANALYSIS: 17

WHAT WAS THE MALFUNCTION?

The CDS release gate was slow to cut.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

1. The guillotine knife was dull.
2. The CDS release gate was improperly rigged.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

1. Inspect CDS kit components for serviceability (i.e. sharp knife).
2. Rig the Type XXVI release gate IAW TO 1C-130A-9.

TAR&M/SA VOL III

I. GENERAL				
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C-130	5. ACFT SER NO.
6. OPERATION/EXERCISE		7. DZ AND LOCATION	8. DATE AND TIME	
9. ACFT ALTITUDE (Feet) 1223 AGL	10. ACFT SPEED (Knots) 130 KIAS	11. DZ ELEVATION (Feet) 1424 MSL	12. SURFACE WINDS (Knots) Light	13. VISIBILITY (Feet/Miles) Clear

III. CARGO				
23. TYPE LOAD AND WEIGHT CDS 600 LBS	24. RIGGED IAW (TM/TO/NAVAIR No.) FM 10-500-3/ TO 13C7-1-11	25. AERIAL DELIVERY SYSTEM USED		
		DUAL RAIL	CDS RELEASE GATE	OTHER (Explain)
		NO. PLATFORMS	NO. CONTAINERS 3	
26. TYPE PLATFORM/AIR-DROP CONTAINER A-22	27. TYPE PARACHUTE AND NUMBER 26-Foot Ring Slot (1)	28. SIZE EXTRACTION/RELEASE PARACHUTE	29. LENGTH OF REEFING LINE	30. POSITION OF LOAD IN AIRCRAFT FS 550
31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.) Three bundle mass CDS exited the aircraft normally. As the bundles descended the #2 and #3 bundles were one on top of the other causing air starvation for the top bundle. The higher bundle started falling faster and fell through the lower bundles parachute causing the parachute to collapse and free fall from approximately 200 feet.-				
32. CAUSE OF MALFUNCTION/FAILURE (If more space is needed, continue on reverse.) Air starvation.				

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ANALYSIS: 18

WHAT WAS THE MALFUNCTION?

Container #3 experienced air starvation, lost altitude coming in contact with the parachute canopy of container #2.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

The cause was air starvation.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

Inherent with mass CDS operations.

TAR&M/SA VOL III

I. GENERAL				
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C-130	5. ACFT SER NO.
6. OPERATION/EXERCISE		7. DZ AND LOCATION	8. DATE AND TIME	
9. ACFT ALTITUDE (Feet) 650 AGL	10. ACFT SPEED (Knots) 130	11. DZ ELEVATION (Feet) 372	12. SURFACE WINDS (Knots) Calm	13. VISIBILITY (Feet/Miles) Unrestricted

III. CARGO				
23. TYPE LOAD AND WEIGHT CDS 1000 Lbs	24. RIGGED IAW (TM/TO/NAVAIR No.) FM 10-500-3/ TO 13C7-1-11	25. AERIAL DELIVERY SYSTEM USED		
		DUAL RAIL	CDS RELEASE GATE	OTHER (Explain) High-Velocity
		NO. PLATFORMS	NO. CONTAINERS 1	
26. TYPE PLATFORM/AIR-DROP CONTAINER A-22	27. TYPE PARACHUTE AND NUMBER 26-Foot High Velocity (1)	28. SIZE EXTRACTION/RELEASE PARACHUTE	29. LENGTH OF REEFING LINE	30. POSITION OF LOAD IN AIRCRAFT 550
31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.) At green light the retriever activated and broke the tie but did not cut the gate.				
32. CAUSE OF MALFUNCTION/FAILURE (If more space is needed, continue on reverse.) Right hand static line retriever limit switch out of adjustment.				

CONTINUED ON NEXT PAGE

ANALYSIS: 19

WHAT WAS THE MALFUNCTION?

The CDS release gate failed to cut.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

The static line retriever limit switch was out of adjustment.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

Replace western gear static line retrievers.

TAR&M/SA VOL III

I. GENERAL				
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT CH-47	5. ACFT SER NO.
6. OPERATION/EXERCISE		7. DZ AND LOCATION		8. DATE AND TIME
9. ACFT ALTITUDE (Feet) 1500	10. ACFT SPEED (Knots) 90 Knots	11. DZ ELEVATION (Feet) 385	12. SURFACE WINDS (Knots) 4 Knots	13. VISIBILITY (Feet/Miles) Unlimited

III. CARGO				
23. TYPE LOAD AND WEIGHT Door Bundle (MREs) 200 Lbs.	24. RIGGED IAW (TM/TO/NAVAIR No.) FM 10-500-3/ TO 13C7-1-11	25. AERIAL DELIVERY SYSTEM USED		
		DUAL RAIL	CDS RELEASE GATE	OTHER (Explain)
		NO. PLATFORMS	NO. CONTAINERS	High-Velocity
26. TYPE PLATFORM/AIR-DROP CONTAINER A-7A	27. TYPE PARACHUTE AND NUMBER 12-Foot High Velocity (1)	28. SIZE EXTRACTION/RELEASE PARACHUTE	29. LENGTH OF REEFING LINE	30. POSITION OF LOAD IN AIRCRAFT 1 of 1
31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.) The 12-foot high velocity parachute was rigged breakaway due to rotary wing aircraft with jumpers following. The bundle did not appear to tumble. The parachute never deployed. The load hit the ground and was destroyed. Upon inspection it was found that the parachute securing tie of 1 length of 1/4-inch cotton webbing was not broken.				
32. CAUSE OF MALFUNCTION/FAILURE (If more space is needed, continue on reverse.) The breakcord tie broke prior to the parachute restraint tie breaking keeping the parachute from deploying. The breaking strength of gutted type III nylon cord and 1/4-inch cotton webbing is too close together to ensure the ties break in the correct order. A proposed change will be submitted on a 2028.				

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ANALYSIS: 20

WHAT WAS THE MALFUNCTION?

The 12-foot high velocity parachute failed to deploy.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

The gutted Type III nylon cord broke prematurely.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

Change rigging procedures to insure the parachute deploys prior to the gutted Type III nylon breaking.

TAR&M/SA VOL III

I. GENERAL				
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C-130	5. ACFT SER NO.
6. OPERATION/EXERCISE		7. DZ AND LOCATION	8. DATE AND TIME	
9. ACFT ALTITUDE (Feet) 400 AGL	10. ACFT SPEED (Knots) 140 KIAs	11. DZ ELEVATION (Feet) 345 MSL	12. SURFACE WINDS (Knots) Calm	13. VISIBILITY (Feet/Miles) Unlimited

III. CARGO				
23. TYPE LOAD AND WEIGHT 105mm APERS HVCDS 1990 Lbs	24. RIGGED IAW (TM/TO/NAVAIR No.) FM 10-500-3/ TO 13C7-1-11	25. AERIAL DELIVERY SYSTEM USED		
		DUAL RAIL	CDS RELEASE GATE	OTHER (Explain)
		NO. PLATFORMS	NO. CONTAINERS 12	CVR
26. TYPE PLATFORM/AIR-DROP CONTAINER A-22	27. TYPE PARACHUTE AND NUMBER 26-Foot Ring Slot (1)	28. SIZE EXTRACTION/RELEASE PARACHUTE	29. LENGTH OF REEFING LINE	30. POSITION OF LOAD IN AIRCRAFT FS 617 RS
31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.) Load failed to exit on right side of CVR, left side exited normally. No damage to equipment was noted. Release gate was cut normally on both sides but right stick stopped moving aft approximately FS 617. Airdrop malfunction procedures were performed without further incident.				
32. CAUSE OF MALFUNCTION/FAILURE (If more space is needed, continue on reverse.) Right side of aircraft and CVR exhibited moderate friction against some of the skidboards during the loading process. Two containers were rejected. The remaining containers were deemed acceptable by the LMs and JAI. The aircrew reported that the aircraft did not reach drop altitude until drop time and that deck angle seemed less than normal.				

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ANALYSIS: 21

WHAT WAS THE MALFUNCTION?

The right side CDS container failed to exit the aircraft.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

1. The deck angle may not have been correct.
2. The cargo compartment roller trays may have been loose.
3. The skidboards were too wide.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

1. Prepare skidboards IAW TO 13C7-1-11.
2. Follow aircraft rigging/delivery procedures.
3. Insure aircraft dual rails and roller conveyors are installed and maintained correctly by qualified individuals.

TAR&M/SA VOL III

I. GENERAL				
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C-130	5. ACFT SER NO.
6. OPERATION/EXERCISE		7. DZ AND LOCATION	8. DATE AND TIME	
9. ACFT ALTITUDE (Feet) 450 AGL	10. ACFT SPEED (Knots) 140 IAS	11. DZ ELEVATION (Feet) 240 MSL	12. SURFACE WINDS (Knots) 310/15 Knots	13. VISIBILITY (Feet/Miles) 13 + Miles

III. CARGO				
23. TYPE LOAD AND WEIGHT A-22 CDS 1210 Lbs	24. RIGGED IAW (TM/TO/NAVAIR No.) FM 10-500-3/ TO 13C7-1-11	25. AERIAL DELIVERY SYSTEM USED		
		DUAL RAIL	CDS RELEASE GATE	OTHER (Explain)
		NO. PLATFORMS	NO. CONTAINERS 1	
26. TYPE PLATFORM/AIR-DROP CONTAINER A-22	27. TYPE PARACHUTE AND NUMBER G12E (1)	28. SIZE EXTRACTION/RELEASE PARACHUTE Pilot Parachute	29. LENGTH OF REEFING LINE	30. POSITION OF LOAD IN AIRCRAFT FS 617
31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.) Static line retriever engaged for one second and stopped. The 80 pound safety tie and release gate were not cut. Load failed to exit. Emergency procedures were initiated. No damage to the aircraft or the CDS.				
32. CAUSE OF MALFUNCTION/FAILURE (If more space is needed, continue on reverse.) Post mission inspection of the western winch, static line retriever, indicated that the limit switch was out of adjustment. Maintenance performed test on the switch. Switch was readjusted.				

CONTINUED ON NEXT PAGE

ANALYSIS: 22

WHAT WAS THE MALFUNCTION?

Single ply CDS release gate failed to cut at green light.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

Western gear static line retriever winch's cutoff microswitch out of adjustment.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

Remove/Replace and thoroughly inspect microswitch for proper tolerances and adjustment.

TAR&M/SA VOL III

I. GENERAL				
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C-130	5. ACFT SER NO.
6. OPERATION/EXERCISE		7. DZ AND LOCATION	8. DATE AND TIME	
9. ACFT ALTITUDE (Feet) 675 AGL	10. ACFT SPEED (Knots) 130 Kts	11. DZ ELEVATION (Feet)	12. SURFACE WINDS (Knots) Calm	13. VISIBILITY (Feet/Miles) 10 Miles

III. CARGO				
23. TYPE LOAD AND WEIGHT CDS 1000 Lbs	24. RIGGED IAW (TM/TO/NAVAIR No.) FM 10-500-3/ TO 13C7-1-11 Chapter 8	25. AERIAL DELIVERY SYSTEM USED		
		<input type="checkbox"/> DUAL RAIL	<input type="checkbox"/> CDS RELEASE GATE	OTHER (Explain) High Velocity
		NO. PLATFORMS	NO. CONTAINERS 1	
26. TYPE PLATFORM/AIR-DROP CONTAINER A-22	27. TYPE PARACHUTE AND NUMBER 26-Foot Ringslot (1)	28. SIZE EXTRACTION/RELEASE PARACHUTE	29. LENGTH OF REEFING LINE	30. POSITION OF LOAD IN AIRCRAFT FS 530
31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.) Western gear retriever failed to cut at green light. Retriever activated but shut off prematurely.				
32. CAUSE OF MALFUNCTION/FAILURE (If more space is needed, continue on reverse.) Western gear retriever. Retriever was found to have microswitch out of adjustment.				

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ANALYSIS: 23

WHAT WAS THE MALFUNCTION?

Single ply CDS release gate failed to cut at green light.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

Western gear static line retriever winch's cutoff microswitch out of adjustment.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

Remove/Replace and thoroughly inspect microswitch for proper tolerances and adjustment.

TAR&M/SA VOL III

I. GENERAL				
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT CH-47	5. ACFT SER NO.
6. OPERATION/EXERCISE		7. DZ AND LOCATION		8. DATE AND TIME
9. ACFT ALTITUDE (Feet) 1000	10. ACFT SPEED (Knots) 90 Knots	11. DZ ELEVATION (Feet) 407 MSL	12. SURFACE WINDS (Knots) 5 Knots	13. VISIBILITY (Feet/Miles) 1 Mile

III. CARGO				
23. TYPE LOAD AND WEIGHT Ramp Bundle 490 Lbs	24. RIGGED IAW (TM/TO/NAVAIR No.) FM 10-500-3/ TO 13C7-1-11	25. AERIAL DELIVERY SYSTEM USED		
		DUAL RAIL	CDS RELEASE GATE	OTHER (Explain)
		NO. PLATFORMS	NO. CONTAINERS 1	
26. TYPE PLATFORM/AIR-DROP CONTAINER A-21	27. TYPE PARACHUTE AND NUMBER G-14 (1)	28. SIZE EXTRACTION/RELEASE PARACHUTE	29. LENGTH OF REEFING LINE	30. POSITION OF LOAD IN AIRCRAFT Tail Gate
31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.) On the green light, the A-21 container, rigged for breakaway, was pushed off the ramp. When it reached the edge of the ramp, it went top heavy causing the Type III gutted to break immediately. The container turned twice in the air while falling. The A-21 container was completely destroyed upon impact with the ground. There was no damage to the G-14 parachute.				
32. CAUSE OF MALFUNCTION/FAILURE (If more space is needed, continue on reverse.) Total malfunction of the equipment. The container was top heavy, which caused the bundle to go end over end. While breaking the Type III immediately. The G-14 was not allowed to elongate, thus the load landed on top of the parachute.				

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ANALYSIS: 24

WHAT WAS THE MALFUNCTION?

The G-14 parachute failed to deploy.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

1. The gutted Type III nylon cord broke prematurely.
2. The A-21 container was top heavy.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

1. Rig containers IAW TO 13C7-1-11.
2. Insure vertical center of balance is correct.

TAR&M/SA VOL III

I. GENERAL				
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C-17	5. ACFT SER NO.
6. OPERATION/EXERCISE		7. DZ AND LOCATION		8. DATE AND TIME
9. ACFT ALTITUDE (Feet) 925	10. ACFT SPEED (Knots) 145 KIAS	11. DZ ELEVATION (Feet) 289 MSL	12. SURFACE WINDS (Knots) Calm	13. VISIBILITY (Feet/Miles) 7+

III. CARGO				
23. TYPE LOAD AND WEIGHT CDS 1810 Lbs	24. RIGGED IAW (TM/TO/NAVAIR No.) FM 10-512/ TO 13C7-1-8	25. AERIAL DELIVERY SYSTEM USED		
		DUAL RAIL	CDS RELEASE GATE	OTHER (Explain) GRM
		NO. PLATFORMS	NO. CONTAINERS 2	
26. TYPE PLATFORM/AIR-DROP CONTAINER A-22	27. TYPE PARACHUTE AND NUMBER G-12E (1)	28. SIZE EXTRACTION/RELEASE PARACHUTE	29. LENGTH OF REEFING LINE	30. POSITION OF LOAD IN AIRCRAFT FS 1025
31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.) Second of two containers failed to gravity feed from aircraft. It rolled very slowly and stopped at approximately the ramp hinge area.				
32. CAUSE OF MALFUNCTION/FAILURE (If more space is needed, continue on reverse.) Upon inspection, a groove was observed carved in the bottom of the skidboard, apparently caused by contact with the uplock stop screw on the left hand logistical rail handle. The screws were measured by Boeing personnel and found to be within specifications, but higher than the other screws on the floor. A slight bowing of the skidboard is thought to be the cause of the contact.				

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ANALYSIS: 25

WHAT WAS THE MALFUNCTION?

The CDS container failed to exit the aircraft.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

The skidboard contacted the uplock stop screw on the left hand logistical rail handle.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

1. Do not load CDS container in this area.
2. Change the uplock stop screw height.

TAR&M/SA VOL III

I. GENERAL				
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C-130	5. ACFT SER NO.
6. OPERATION/EXERCISE		7. DZ AND LOCATION	8. DATE AND TIME	
9. ACFT ALTITUDE (Feet) 650 AGL	10. ACFT SPEED (Knots) 130 KTS	11. DZ ELEVATION (Feet) 35	12. SURFACE WINDS (Knots) NE10	13. VISIBILITY (Feet/Miles) 7+M

III. CARGO				
23. TYPE LOAD AND WEIGHT CDS 659 Lbs	24. RIGGED IAW (TM/TO/NAVAIR No.) FM 10-500-3/ TO 13C7-1-11	25. AERIAL DELIVERY SYSTEM USED		
		DUAL RAIL	CDS RELEASE GATE	OTHER (Explain)
		NO. PLATFORMS	NO. CONTAINERS 1	
26. TYPE PLATFORM/AIR-DROP CONTAINER A-22	27. TYPE PARACHUTE AND NUMBER 26-Foot High Velocity (1)	28. SIZE EXTRACTION/RELEASE PARACHUTE	29. LENGTH OF REEFING LINE	30. POSITION OF LOAD IN AIRCRAFT FS530
31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.) Static line retriever (western gear) on the left side of the aircraft failed to cut single ply release gate.				
32. CAUSE OF MALFUNCTION/FAILURE (If more space is needed, continue on reverse.) Static line retriever micro switch engaged and stopped the retriever after the safety tie broke but before the knife cut the release gate.				

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ANALYSIS: 26

WHAT WAS THE MALFUNCTION?

Single ply CDS release gate failed to cut at green light.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

Western gear static line retriever winch's cutoff microswitch out of adjustment.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

Remove/Replace and thoroughly inspect microswitch for proper tolerances and adjustment.

TAR&M/SA VOL III

I. GENERAL				
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C-130	5. ACFT SER NO.
6. OPERATION/EXERCISE		7. DZ AND LOCATION	8. DATE AND TIME	
9. ACFT ALTITUDE (Feet) 400	10. ACFT SPEED (Knots) 130	11. DZ ELEVATION (Feet) 240	12. SURFACE WINDS (Knots) 240 @ 4	13. VISIBILITY (Feet/Miles) Unlimited

III. CARGO				
23. TYPE LOAD AND WEIGHT CDS 1210 Lbs	24. RIGGED IAW (TM/TO/NAVAIR No.) FM 10-500-3/ TO 13C7-1-11	25. AERIAL DELIVERY SYSTEM USED		
		DUAL RAIL	CDS RELEASE GATE	OTHER (Explain)
		NO. PLATFORMS	NO. CONTAINERS 1	
26. TYPE PLATFORM/AIR-DROP CONTAINER A-22	27. TYPE PARACHUTE AND NUMBER G-12E (1)	28. SIZE EXTRACTION/RELEASE PARACHUTE Pilot	29. LENGTH OF REEFING LINE	30. POSITION OF LOAD IN AIRCRAFT 417
31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.) Static line retriever engaged for one second, then stopped. The 80 pound safety tie and release gate were not cut. Load failed to exit. Emergency procedures were initiated. No damage to aircraft or load.				
32. CAUSE OF MALFUNCTION/FAILURE (If more space is needed, continue on reverse.) Post mission inspection of the right side western winch indicated that the cup was out of adjustment. Maintenance corrected the problem. It has been noted that the last four out of five malfunctions incurred over the years has been directly linked to the poor performance of the western winch.				

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ANALYSIS: 27

WHAT WAS THE MALFUNCTION?

Single ply CDS release gate failed to cut at green light.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

Western gear static line retriever winch's spring cup out of adjustment.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

Remove/Replace and thoroughly inspect retriever to ensure springs properly seat in spring cup during preflight inspection.

TAR&M/SA VOL III

I. GENERAL				
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C130	5. ACFT SER NO.
6. OPERATION/EXERCISE		7. DZ AND LOCATION	8. DATE AND TIME	
9. ACFT ALTITUDE (Feet) 800 AGL	10. ACFT SPEED (Knots)	11. DZ ELEVATION (Feet) 328	12. SURFACE WINDS (Knots) 4-6	13. VISIBILITY (Feet/Miles) 7 miles

III. CARGO					
23. TYPE LOAD AND WEIGHT CDS 1340 Lbs	24. RIGGED IAW (TM/TO/NAVAIR No.) FM 10-500-3/ TO 13C7-1-11	25. AERIAL DELIVERY SYSTEM USED			
		DUAL RAIL	<input checked="" type="checkbox"/>	CDS RELEASE GATE	OTHER (Explain)
		NO. PLATFORMS	NO. CONTAINERS 2		
26. TYPE PLATFORM/AIR-DROP CONTAINER A22	27. TYPE PARACHUTE AND NUMBER G12E (1)	28. SIZE EXTRACTION/RELEASE PARACHUTE NA	29. LENGTH OF REEFING LINE NA	30. POSITION OF LOAD IN AIRCRAFT 1 of 2	
31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.) Both loads exited the aircraft normally but the 68-inch pilot parachute on the first load never deployed. The load landed with no parachute and was destroyed. The load was a training load consisting of sandboxes.					
32. CAUSE OF MALFUNCTION/FAILURE (If more space is needed, continue on reverse.) Upon inspection of load, it was determined that the connector link that connects the G12E bridle to the pilot parachute was routed through the bag closing loop on the pilot parachute bag. Cause of malfunction was improper rigging procedures and improper inspection during JAI inspection.					

CONTINUED ON NEXT PAGE

ANALYSIS: 28

WHAT WAS THE MALFUNCTION?

68-inch pilot parachute failed to deploy resulting in G12E remaining in its deployment bag and load impacting ground without an open parachute.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

68-inch pilot parachute's L-bar connector link improperly attached to pilot parachute bag closing loop.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

Ensure parachutes are rigged IAW appropriate FM/TO and place increased emphasis on correct JAI inspection procedures.

TAR&M/SA VOL III

I. GENERAL				
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C130	5. ACFT SER NO.
6. OPERATION/EXERCISE		7. DZ AND LOCATION		8. DATE AND TIME
9. ACFT ALTITUDE (Feet) 800 AGL	10. ACFT SPEED (Knots)	11. DZ ELEVATION (Feet) 328	12. SURFACE WINDS (Knots) 4-6	13. VISIBILITY (Feet/Miles) 7 Miles

III. CARGO				
23. TYPE LOAD AND WEIGHT CDS 1700 Lbs	24. RIGGED IAW (TM/TO/NAVAIR No.) FM 10-500-3/ TO 13C7-1-11	25. AERIAL DELIVERY SYSTEM USED		
		DUAL RAIL	<input checked="" type="checkbox"/> CDS RELEASE GATE	OTHER (Explain)
		NO. PLATFORMS	NO. CONTAINERS 2	
26. TYPE PLATFORM/AIR-DROP CONTAINER A22	27. TYPE PARACHUTE AND NUMBER G12E (1)	28. SIZE EXTRACTION/RELEASE PARACHUTE	29. LENGTH OF REEFING LINE	30. POSITION OF LOAD IN AIRCRAFT 1 of 2
31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.) Both containers exited aircraft normally but the pilot parachute on the first load never deployed. The load landed with no parachute and the load consisting of sandboxes was destroyed.				
32. CAUSE OF MALFUNCTION/FAILURE (If more space is needed, continue on reverse.) Inspection of the load was performed and we found that the connector link that connects the G12E bridle to the deployment strap of the 68-inch pilot parachute was routed through the bag closing loops of the pilot parachute bag. The cause was improper rigging procedures and improper inspection during JAI.				

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ANALYSIS: 29

WHAT WAS THE MALFUNCTION?

The 68-inch pilot parachute failed to deploy resulting in G12E remaining in its deployment bag and load impacting ground without an open parachute.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

The 68-inch pilot parachute's L-bag connector link improperly attached to pilot parachute bag closing loop.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

Ensure parachutes are rigged IAW appropriate FM/TO and place increase emphasis on correct JAI inspection procedures.

TAR&M/SA VOL III

I. GENERAL				
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C-130	5. ACFT SER NO.
6. OPERATION/EXERCISE		7. DZ AND LOCATION	8. DATE AND TIME	
9. ACFT ALTITUDE (Feet) 6610 MSL	10. ACFT SPEED (Knots) 140 KCAS	11. DZ ELEVATION (Feet) 5610 MSL	12. SURFACE WINDS (Knots) vbl @ 8 kt	13. VISIBILITY (Feet/Miles) 7+ Miles

III. CARGO				
23. TYPE LOAD AND WEIGHT High Velocity CDS 600 Lbs	24. RIGGED IAW (TM/TO/NAVAIR No.) TO 1C-130A-9	25. AERIAL DELIVERY SYSTEM USED		
		DUAL RAIL	CDS RELEASE GATE	OTHER (Explain) High Velocity
		NO. PLATFORMS	NO. CONTAINERS 1	
26. TYPE PLATFORM/AIR-DROP CONTAINER A-22 Bundle	27. TYPE PARACHUTE AND NUMBER 26-Foot High Velocity (1)	28. SIZE EXTRACTION/RELEASE PARACHUTE	29. LENGTH OF REEFING LINE	30. POSITION OF LOAD IN AIRCRAFT FS 500
31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.) (1) At green light: Static line retriever started, line went tight, after 3 seconds the gate was not cut. (2) No drop called: Static line retriever stopped and immediately the 95-inch strap and pulley fell to floor. (3) Inspection revealed 80 pound tie cut, restraining strap started to be cut and stitching on 95-inch strap had failed.				
32. CAUSE OF MALFUNCTION/FAILURE (If more space is needed, continue on reverse.) (1) Possible failure of static line retriever to deliver required pull. No pull test performed because maintenance inspection revealed the clutch was broken. (2) Possible failure of stitching on 95-inch strap.				

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ANALYSIS: 30

WHAT WAS THE MALFUNCTION?

Single ply CDS release gate failed to cut at green light.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

Stitching failed on a 95-inch pulley strap.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

Thoroughly inspect pulley straps prior to use.

TAR&M/SA VOL III

I. GENERAL				
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C-130	5. ACFT SER NO.
6. OPERATION/EXERCISE		7. DZ AND LOCATION		8. DATE AND TIME
9. ACFT ALTITUDE (Feet) 700	10. ACFT SPEED (Knots) 130	11. DZ ELEVATION (Feet) 190	12. SURFACE WINDS (Knots) Calm	13. VISIBILITY (Feet/Miles) 7 Miles

III. CARGO					
23. TYPE LOAD AND WEIGHT CDS Training Load/850 Lbs	24. RIGGED IAW (TM/TO/NAVAIR No.) FM 10-500-3/ TO 13C7-1-11	25. AERIAL DELIVERY SYSTEM USED			
		DUAL RAIL	<input checked="" type="checkbox"/>	CDS RELEASE GATE	OTHER (Explain)
		NO. PLATFORMS	NO. CONTAINERS 1		
26. TYPE PLATFORM/AIR-DROP CONTAINER A-22	27. TYPE PARACHUTE AND NUMBER G-14 (2)	28. SIZE EXTRACTION/RELEASE PARACHUTE	29. LENGTH OF REEFING LINE	30. POSITION OF LOAD IN AIRCRAFT FS 710	

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)

At "green light", the retriever winch ran for approximately 1 second then stopped. The cable was tight, but pressure was not sufficient to break the guillotine knife safety tie. Gate did not cut, load did not exit the aircraft. Malfunction checklist was completed and mission terminated without incident. The load was rigged with the pulley at FS 737 using the right SLR winch. The winch was a Western Gear type.

32. CAUSE OF MALFUNCTION/FAILURE (If more space is needed, continue on reverse.)

Upon landing, maintenance and JAI personnel examined the retriever winch and conducted three tests of the winch including a gate cut. The winch functioned properly each time. No cause could be determined.

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ANALYSIS: 31

WHAT WAS THE MALFUNCTION?

Single ply CDS release gate failed to cut at green light.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

Western gear static line retriever winch's cutoff microswitch out of adjustment.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

Remove/Replace and thoroughly inspect microswitch for proper tolerances and adjustment.

TAR&M/SA VOL III

I. GENERAL				
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT MC-130E	5. ACFT SER NO.
6. OPERATION/EXERCISE		7. DZ AND LOCATION		8. DATE AND TIME
9. ACFT ALTITUDE (Feet) 3500 Feet MSL	10. ACFT SPEED (Knots) 140 KIAS	11. DZ ELEVATION (Feet) 0	12. SURFACE WINDS (Knots) 340/4	13. VISIBILITY (Feet/Miles) Unlimited

III. CARGO				
23. TYPE LOAD AND WEIGHT RAMZ 680 Lbs	24. RIGGED IAW (TM/TO/NAVAIR No.) TO 1C-130A-9	25. AERIAL DELIVERY SYSTEM USED		
		DUAL RAIL	CDS RELEASE GATE	OTHER (Explain) Ramp
		NO. PLATFORMS	NO. CONTAINERS	
26. TYPE PLATFORM/AIR-DROP CONTAINER RAMZ	27. TYPE PARACHUTE AND NUMBER 2 x T-10	28. SIZE EXTRACTION/RELEASE PARACHUTE	29. LENGTH OF REEFING LINE	30. POSITION OF LOAD IN AIRCRAFT Ramp
31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.) Load rolled off ramp and was suspended by a restraining strap. Strap eventually failed and load departed aircraft under parachutes.				
32. CAUSE OF MALFUNCTION/FAILURE (If more space is needed, continue on reverse.) Unknown.				

CONTINUED ON NEXT PAGE

ANALYSIS: 32

WHAT WAS THE MALFUNCTION?

RAMZ container inadvertently exited aircraft.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

The container not rigged IAW published directives.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

Ensure all loads are rigged and inspected IAW published directives.

TAR&M/SA VOL III

I. GENERAL				
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C-130	5. ACFT SER NO.
6. OPERATION/EXERCISE		7. DZ AND LOCATION	8. DATE AND TIME	
9. ACFT ALTITUDE (Feet) 425 AGL	10. ACFT SPEED (Knots) 130 kts	11. DZ ELEVATION (Feet) 395	12. SURFACE WINDS (Knots) 250 @ 6 kts	13. VISIBILITY (Feet/Miles) Unlimited

III. CARGO				
23. TYPE LOAD AND WEIGHT CDS 1450 Lbs	24. RIGGED IAW (TM/TO/NAVAIR No.) FM 10-500-3/ TO 13C7-1-11	25. AERIAL DELIVERY SYSTEM USED		
		DUAL RAIL	CDS RELEASE GATE	OTHER (Explain)
		NO. PLATFORMS	NO. CONTAINERS 1	
26. TYPE PLATFORM/AIR-DROP CONTAINER A-22	27. TYPE PARACHUTE AND NUMBER G12E (1)	28. SIZE EXTRACTION/RELEASE PARACHUTE	29. LENGTH OF REEFING LINE	30. POSITION OF LOAD IN AIRCRAFT FS 700
31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.) At green light the left retriever activated and then cut off 1 to 2 seconds later without breaking the 80 pound. The loadmasters initiated the malfunction checklist without further incident and returned to base. There was no damage to the aircraft or personnel injury.				
32. CAUSE OF MALFUNCTION/FAILURE (If more space is needed, continue on reverse.) All rigging and aircraft preparation was in accordance with the -9. The retriever winch microswitch and beaded chains looked normal. We attempted to duplicate the problem on the ground. The retriever cut off approximately 2 seconds after it activated. A visual inspection revealed nothing about the retriever that would tell me why it cut off. I believe the timer was bad on the retriever.				

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ANALYSIS: 33

WHAT WAS THE MALFUNCTION?

Single ply CDS release gate failed to cut at green light.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

Western gear static line retriever winch's cutoff microswitch out of adjustment.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

Remove/Replace and thoroughly inspect microswitch for proper tolerances and adjustment.

TAR&M/SA VOL III

I. GENERAL				
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C-141	5. ACFT SER NO.
6. OPERATION/EXERCISE		7. DZ AND LOCATION		8. DATE AND TIME
9. ACFT ALTITUDE (Feet) 625 AGL	10. ACFT SPEED (Knots) 150	11. DZ ELEVATION (Feet) 1175	12. SURFACE WINDS (Knots) Calm	13. VISIBILITY (Feet/Miles) 7 + Miles

III. CARGO				
23. TYPE LOAD AND WEIGHT CDS 925 Lbs	24. RIGGED IAW (TM/TO/NAVAIR No.) FM 10-500-3/ TO 13C7-1-11	25. AERIAL DELIVERY SYSTEM USED		
		DUAL RAIL	CDS RELEASE GATE	OTHER (Explain) CVR
		NO. PLATFORMS	NO. CONTAINERS	
26. TYPE PLATFORM/AIR-DROP CONTAINER A-22	27. TYPE PARACHUTE AND NUMBER G-14 (2)	28. SIZE EXTRACTION/RELEASE PARACHUTE	29. LENGTH OF REEFING LINE	30. POSITION OF LOAD IN AIRCRAFT
31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.) CDS bundle exited the aircraft normally. Both G-14s deployed from the bags normally. The parachutes however remained cigar rolled, but separated until the bundle impacted the ground. The only damage noted was the loss of the skidboard.				
32. CAUSE OF MALFUNCTION/FAILURE (If more space is needed, continue on reverse.) The parachute risers appeared to have two twists in them. This in itself should not have caused the parachutes not to inflate. Drop zone personnel stated that during the previous drop the G-14s had been slow to open. Suspected cause is believed to be air starvation due to the calm winds on the drop zone.				

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ANALYSIS: 34

WHAT WAS THE MALFUNCTION?

Two G-14 parachutes failed to properly deploy/inflate after normal exit.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

Parachute risers had two twists due to improper rigging procedures.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

1. Ensure proper parachute packing procedures are followed IAW established directives.
2. Drop in high winds only.

TAR&M/SA VOL III

I. GENERAL				
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C-130	5. ACFT SER NO.
6. OPERATION/EXERCISE		7. DZ AND LOCATION	8. DATE AND TIME	
9. ACFT ALTITUDE (Feet) 784	10. ACFT SPEED (Knots) 1401	11. DZ ELEVATION (Feet) 1424	12. SURFACE WINDS (Knots) 12	13. VISIBILITY (Feet/Miles) 5.4 Miles

III. CARGO				
23. TYPE LOAD AND WEIGHT CDS 800 Lbs	24. RIGGED IAW (TM/TO/NAVAIR No.) FM 10-500-3/ TO 13C7-1-11	25. AERIAL DELIVERY SYSTEM USED		
		DUAL RAIL	CDS RELEASE GATE	OTHER (Explain)
		NO. PLATFORMS	NO. CONTAINERS 1	
26. TYPE PLATFORM/AIR-DROP CONTAINER A-22	27. TYPE PARACHUTE AND NUMBER 26 Foot (1)	28. SIZE EXTRACTION/RELEASE PARACHUTE	29. LENGTH OF REEFING LINE	30. POSITION OF LOAD IN AIRCRAFT FS 690/PS 737
31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.) Loadmaster on the airplane stated that at "Green Light", the Western Gear Static Line Retriever Winch on the right side of the aircraft started to rewind. The winch stopped rewinding prior to breaking the 80 pound safety tie on the guillotine knife. The Type XXVI nylon release gate was never cut, and the bundle remained in the aircraft. There was no damage to the bundle or the aircraft.				
32. CAUSE OF MALFUNCTION/FAILURE (If more space is needed, continue on reverse.) Western Gear Static Line Retriever Winch was preflighted and worked properly after malfunction. A pull test was conducted by maintenance and found to be within limits. The compression spring was fully seated and the beaded chains were measured and found to be equal and also within limits. Cause of malfunction UNKNOWN.				

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ANALYSIS: 35

WHAT WAS THE MALFUNCTION?

Single ply CDS release gate failed to cut at green light.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

Western gear static line retriever winch's cutoff microswitch out of adjustment.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

Remove/Replace and thoroughly inspect microswitch for proper tolerances and adjustment.

TAR&M/SA VOL III

I. GENERAL				
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C-130	5. ACFT SER NO.
6. OPERATION/EXERCISE		7. DZ AND LOCATION		8. DATE AND TIME
9. ACFT ALTITUDE (Feet) 650 AGL	10. ACFT SPEED (Knots) 130	11. DZ ELEVATION (Feet) 372	12. SURFACE WINDS (Knots) Calm	13. VISIBILITY (Feet/Miles) 7 Miles

III. CARGO				
23. TYPE LOAD AND WEIGHT CDS 1000 Lbs	24. RIGGED IAW (TM/TO/NAVAIR No.) FM 10-500-3/ TO 13C7-1-11	25. AERIAL DELIVERY SYSTEM USED		
		DUAL RAIL	CDS RELEASE GATE	OTHER (Explain) High Velocity
		NO. PLATFORMS	NO. CONTAINERS 1	
26. TYPE PLATFORM/AIR-DROP CONTAINER A-22	27. TYPE PARACHUTE AND NUMBER 26-Foot High Velocity	28. SIZE EXTRACTION/RELEASE PARACHUTE	29. LENGTH OF REEFING LINE	30. POSITION OF LOAD IN AIRCRAFT 550
31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.) At green light the system activated normally. During cleanup the crew found the guillotine knife, the quick disconnect was still attached to the SL retriever cable and showed no evidence of damage. No part of the knife assembly was left in the quick disconnect. Quick disconnect worked properly with another knife.				
32. CAUSE OF MALFUNCTION/FAILURE (If more space is needed, continue on reverse.) The loadmaster said it appeared the cable snapped hard against the top of the airplane when the gate cut, but did not notice the knife disconnecting. The knife was sharp. Suspect that when the knife/quick disconnect struck the top of the aircraft the spring compressed allowing the knife to fall out. The gate was reported as being tight.				

CONTINUED ON NEXT PAGE

ANALYSIS: 36

WHAT WAS THE MALFUNCTION?

Guillotine knife separated from quick-disconnect during single container drop.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

Dull guillotine knife caused too much recoil causing it to strike aircraft ceiling and weak quick disconnect spring allowed knife to come out.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

Thoroughly inspect quick disconnects prior to use and ensure connectors are properly seated.

PERSONNEL MALFUNCTION REPORTS AND ANALYSES

I. GENERAL					
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C-130	5. ACFT SER NO.	
6. OPERATION/EXERCISE		7. DZ AND LOCATION		8. DATE AND TIME	
9. ACFT ALTITUDE (Feet) 9999	10. ACFT SPEED (Knots) 130 Knots	11. DZ ELEVATION (Feet) 300 Feet	12. SURFACE WINDS (Knots) 3-5 Knots	13. VISIBILITY (Feet/Miles) Unlimited	
II. PERSONNEL					
14. NAME (Last, First, MI), GRADE, SSAN, & UNIT		15. EQUIPMENT WORN BY JUMPER Oxygen Twin 53 w/mask ALICE Pack		16. JUMPER'S POSITION IN ACFT Jumpmaster	
17. TYPE PARACHUTE (Specify) MC-4	18. TYPE MALFUNCTION				19. NO. JUMPS 30 logged
	SEMI-INVERSION	INVERSION	CIGARETTE ROLL	OTHER (SPECIFY)	
	PILOT CHUTE	BLOWN SECTION	BROKEN SUSPENSION LINE	Riser under L arm	
20. TYPE OF RESERVE MC-4	21. RESERVE FUNCTIONED PROPERLY (If "No" explain in item 31) <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		22. RESULTING INJURY None		

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)

The jumper was observed from the ground as having difficulty controlling his canopy. He was spiraling out of control, then the main parachute was cut-away. The reserve parachute deployed normally and the jump descended safely, but landed off the drop zone because he had a low cut-away.

32. CAUSE OF MALFUNCTION/FAILURE (If more space is needed, continue on reverse.)

The cause of the malfunction is an unstable pull. The jumper exited wearing a front mounted ruck. The right shoulder strap became loose allowing the ruck to move freely and causing the jumper to flip several times during free fall. The jumper said he countered the best he could to become stable, but flipped again as he initiated pull sequence. The main basically deployed around his body causing the left riser to catch his left arm and pinned it overhead. The riser under the arm caused the main canopy to turn hard to the left and spiraling out of control. There was a delay in the cut-away because the jumper's left arm was pinned, but eventually, he was able to reach his cut-away pillow and activated his reserve. The jumper was at approximately 1000 feet AGL when he came under a full canopy causing him to land off the drop zone.

CONTINUED ON NEXT PAGE

ANALYSIS: 37

WHAT WAS THE MALFUNCTION?

The malfunction was an unstable pull of the main ripcord by the jumper.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

The cause of the malfunction was the jumper had jumped an unserviceable ruck sack.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

This would not have happened if the jumpmaster had conducted a more thorough JMPI of the ruck sack before an airborne operation.

I. GENERAL				
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C-130	5. ACFT SER NO.
6. OPERATION/EXERCISE		7. DZ AND LOCATION		8. DATE AND TIME
9. ACFT ALTITUDE (Feet) 1000 AGL	10. ACFT SPEED (Knots) 130	11. DZ ELEVATION (Feet) 50 Ft	12. SURFACE WINDS (Knots) 0	13. VISIBILITY (Feet/Miles) 10 +
II. PERSONNEL				
14. NAME (Last, First, MI), GRADE, SSAN, & UNIT		15. EQUIPMENT WORN BY JUMPER		16. JUMPER'S POSITION IN ACFT Not Given
17. TYPE PARACHUTE (Specify) Not Given	18. TYPE MALFUNCTION			19. NO. JUMPS Not Given
	SEMI-INVERSION	INVERSION	CIGARETTE ROLL	
	PILOT CHUTE	BLOWN SECTION	BROKEN SUSPENSION LINE	Not Given
20. TYPE OF RESERVE Not Given	21. RESERVE FUNCTIONED PROPERLY (If "No" explain in item 31) <input type="checkbox"/> YES <input type="checkbox"/> NO		22. RESULTING INJURY Not Given	

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)

During a recent paratroop drop, the Towed Parachutist Retrieval System (TPRS) was used to retrieve eight static lines from T-10 parachutes. While retrieving, the aft hooks on the Retrieval Assist Strap was damaged. The system was rigged correctly and no other damages were noted.

32. CAUSE OF MALFUNCTION/FAILURE (If more space is needed, continue on reverse.)

The evidence suggested crossing of the hooks, thus bending the retaining clip on the aft hook.

CONTINUED ON NEXT PAGE

ANALYSIS: 38

WHAT WAS THE MALFUNCTION?

The malfunction was a bent retaining clip on the towed parachutist retrieval system.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

The cause of the malfunction was not enough material to properly secure the towed parachutist retrieval system.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

This would not happen if loadmasters utilize two turns single on the towed parachutist retrieval system.

I. GENERAL				
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT Twin Otter	5. ACFT SER NO.
6. OPERATION/EXERCISE		7. DZ AND LOCATION	8. DATE AND TIME	
9. ACFT ALTITUDE (Feet) 17,500 Feet	10. ACFT SPEED (Knots) 90 Knots	11. DZ ELEVATION (Feet) 280 Feet	12. SURFACE WINDS (Knots) Calm	13. VISIBILITY (Feet/Miles) 5 Miles
II. PERSONNEL				
14. NAME (Last, First, MI), GRADE, SSAN, & UNIT		15. EQUIPMENT WORN BY JUMPER Oxygen, GPS Compass Board MC-4 Parachute	16. JUMPER'S POSITION IN ACFT #5 & #6 in stick	
17. TYPE PARACHUTE (Specify) MC-4	18. TYPE MALFUNCTION			
	SEMI-INVERSION	INVERSION	CIGARETTE ROLL	OTHER (SPECIFY)
	PILOT CHUTE	BLOWN SECTION	BROKEN SUSPENSION LINE	Entanglement
19. NO. JUMPS				
20. TYPE OF RESERVE MC-4	21. RESERVE FUNCTIONED PROPERLY (If "No" explain in item 31) <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		22. RESULTING INJURY None	
31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)				
<p>While conducting HAHO jump operations, all jumpers in the stick exited normally. Using a dive exit, the #5 jumper opened his parachute. The #6 jumper exited and opened his canopy while becoming engulfed in jumper #5's parachute. The jumpers maintained communication with each other. Jumper #5 executed emergency procedures and reserve opened properly. Jumper #6 freed himself from #5's canopy and deployed his reserve properly.</p>				
32. CAUSE OF MALFUNCTION/FAILURE (If more space is needed, continue on reverse.)				
<p>Jumper entanglement was due to improper spacing on exit.</p>				

CONTINUED ON NEXT PAGE

ANALYSIS: 39

WHAT WAS THE MALFUNCTION?

The malfunction was a high altitude entanglement.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

Improper spacing on exit from the aircraft.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

Units should reevaluate HAHO training to ensure proper exit and separation from aircraft.

I. GENERAL					
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C-130	5. ACFT SER NO.	
6. OPERATION/EXERCISE		7. DZ AND LOCATION		8. DATE AND TIME	
9. ACFT ALTITUDE (Feet) 1,250 Feet	10. ACFT SPEED (Knots) 130 Knots	11. DZ ELEVATION (Feet)	12. SURFACE WINDS (Knots) 7-11 Knots	13. VISIBILITY (Feet/Miles) Unlimited	
II. PERSONNEL					
14. NAME (Last, First, MI), GRADE, SSAN, & UNIT		15. EQUIPMENT WORN BY JUMPER Kevlar/Hollywood		16. JUMPER'S POSITION IN ACFT 9th Jumper	
17. TYPE PARACHUTE (Specify) T10-C	18. TYPE MALFUNCTION				19. NO. JUMPS 4
	SEMI-INVERSION	INVERSION	CIGARETTE ROLL	OTHER (SPECIFY)	
	PILOT CHUTE	BLOWN SECTION	BROKEN SUSPENSION LINE	Partial	
20. TYPE OF RESERVE MIRPS	21. RESERVE FUNCTIONED PROPERLY (If "No" explain in item 31) <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		22. RESULTING INJURY None		

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)

Upon exiting the aircraft, the jumper counted to four and he had minimal lift capability. The riser assembly was not attached causing the parachute to not fully inflate. The jumper immediately activated the reserve.

32. CAUSE OF MALFUNCTION/FAILURE (If more space is needed, continue on reverse.)

The male portion of the canopy release assembly came dislodged from the female portion. Possible equipment failure. QDR being submitted.

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ANALYSIS: 40

WHAT WAS THE MALFUNCTION?

The male portion became separated from the female portion on the canopy release assembly.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

The canopy release assembly was not seated properly.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

Jumpmaster personnel inspection should find this deficiency.

I. GENERAL					
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C-130	5. ACFT SER NO.	
6. OPERATION/EXERCISE		7. DZ AND LOCATION		8. DATE AND TIME	
9. ACFT ALTITUDE (Feet) 1,250 AGL	10. ACFT SPEED (Knots) 130 KIAS	11. DZ ELEVATION (Feet) Unknown	12. SURFACE WINDS (Knots) 3 KIAS	13. VISIBILITY (Feet/Miles) Unlimited	
II. PERSONNEL					
14. NAME (Last, First, MI), GRADE, SSAN, & UNIT		15. EQUIPMENT WORN BY JUMPER Alice Pack, M-1950		16. JUMPER'S POSITION IN ACFT 2nd jumper/2nd pass	
17. TYPE PARACHUTE (Specify) MC-1-1C	18. TYPE MALFUNCTION				19. NO. JUMPS 52
	SEMI-INVERSION	INVERSION	CIGARETTE ROLL	OTHER (SPECIFY)	
	PILOT CHUTE	BLOWN SECTION	BROKEN SUSPENSION LINE	Entanglement	
20. TYPE OF RESERVE T-10R	21. RESERVE FUNCTIONED PROPERLY (If "No" explain in item 31) <input type="checkbox"/> YES <input type="checkbox"/> NO		22. RESULTING INJURY None		
31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.) Jumper exited the aircraft as the second jumper. Upon exiting the third jumper had twists and was unable to gain control of his parachute. The third jumper was the lower jumper and still bicycling out twists when the second jumper collided with him at about 800 feet AGL. The second jumper entered through suspension line #10 and exited at #11. The two jumpers were unable to untangle. The third jumper deployed his reserve at approximately 100 feet AGL. The reserve did not deploy past the first regular stow. The second jumper did not deploy his reserve. The third jumper received a minor cut to his cheek but did not know when it occurred.					
32. CAUSE OF MALFUNCTION/FAILURE (If more space is needed, continue on reverse.) The third jumper had twists and was unable to steer. The second jumper was unable to turn away quick enough.					

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ANALYSIS: 41

WHAT WAS THE MALFUNCTION?

The malfunction was a midair entanglement.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

The cause of the malfunction was improper canopy control.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

Adhere to the three rules of the air:

1. Maintain 50 foot separation from other jumpers.
2. Turn right to avoid collision.
3. Lower jumper has the right of way.

I. GENERAL					
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT MC-130P	5. ACFT SER NO.	
6. OPERATION/EXERCISE		7. DZ AND LOCATION		8. DATE AND TIME	
9. ACFT ALTITUDE (Feet) 17,999 MSL	10. ACFT SPEED (Knots) 130 Knots	11. DZ ELEVATION (Feet) 5,200 MSL	12. SURFACE WINDS (Knots) 5 Knots	13. VISIBILITY (Feet/Miles) 6 Miles	
II. PERSONNEL					
14. NAME (Last, First, MI), GRADE, SSAN, & UNIT		15. EQUIPMENT WORN BY JUMPER MC-4 with Oxygen Mask		16. JUMPER'S POSITION IN ACFT 4 of 5	
17. TYPE PARACHUTE (Specify) MC-4	18. TYPE MALFUNCTION				19. NO. JUMPS 37
	SEMI-INVERSION	INVERSION	CIGARETTE ROLL	OTHER (SPECIFY)	
	PILOT CHUTE	BLOWN SECTION	BROKEN SUSPENSION LINE	Line Twist/ Hung Slider	
20. TYPE OF RESERVE MC-4	21. RESERVE FUNCTIONED PROPERLY (If "No" explain in item 31) <input type="checkbox"/> YES <input type="checkbox"/> NO		22. RESULTING INJURY None		

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)

Jumper stated he had several twists and a hung slider. He stated his parachute looked like a bowtie, end cells inflated, the center did not. Jumper stated bicycled twice and was unable to clear the twists. Jumper also states he was falling faster than the other team members (backed by witness). At 2,500 feet AGL jumper cutaway and the reserve functioned properly. Malfunction NCO stated the canopy looked normal with the exception of the hung slider.

32. CAUSE OF MALFUNCTION/FAILURE (If more space is needed, continue on reverse.)

Malfunction NCO inspected the parachute on the DZ and found three twists still in the suspension lines. He removed the twists and checked to determine if the canopy was in proper layout. It was. Malfunction NCO stated that the jumper could have removed the twists if he continued to bicycle. Once free from twists the slide would have come all the way down. No damage was found on canopy. NOTE: Team members pack their own parachutes under the supervision of an Army Parachute Rigger.

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ANALYSIS: 42

WHAT WAS THE MALFUNCTION?

The malfunction was a hung slider caused by twists in the suspension line.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

The cause of the malfunction was improper body position.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

Jumper should attend remedial training.

I. GENERAL				
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C-130	5. ACFT SER NO.
6. OPERATION/EXERCISE		7. DZ AND LOCATION		8. DATE AND TIME
9. ACFT ALTITUDE (Feet) 1250 AGL	10. ACFT SPEED (Knots) 130	11. DZ ELEVATION (Feet) 710	12. SURFACE WINDS (Knots) 2	13. VISIBILITY (Feet/Miles) Clear
II. PERSONNEL				
14. NAME (Last, First, MI), GRADE, SSAN, & UNIT		15. EQUIPMENT WORN BY JUMPER Kevlar, LBV, Rucksack		16. JUMPER'S POSITION IN ACFT 8th Pass, Left Door Primary Jumpmaster
17. TYPE PARACHUTE (Specify) MC1-1C	18. TYPE MALFUNCTION			19. NO. JUMPS 56
	SEMI-INVERSION	INVERSION	CIGARETTE ROLL	
	PILOT CHUTE	BLOWN SECTION	BROKEN SUSPENSION LINE	
20. TYPE OF RESERVE T-10	21. RESERVE FUNCTIONED PROPERLY (If "No" explain in item 31) <input type="checkbox"/> YES <input type="checkbox"/> NO		22. RESULTING INJURY	

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)

The parachute sustained a broken control line and extensive damage to gores 11, 12, 13, and 14. The parachutist experienced a normal opening shock but landed before his three fellow jumpers.

32. CAUSE OF MALFUNCTION/FAILURE (If more space is needed, continue on reverse.)

Excessive aircraft speed may have been a factor. Improper jumper body position could have caused numerous twists in the parachute resulting in the damage. Further examination revealed that the broken control line was sewn or tied too short causing it to break during the opening.

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ANALYSIS: 43

WHAT WAS THE MALFUNCTION?

The malfunction was broken control lines and blown gore sections of the main parachute.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

The cause of the malfunction was excessive speed of the aircraft, improper packing procedures, and suspension lines too tight.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

This would not have happened if proper packing procedures were adhered to and the aircraft had not been flying too fast. The packer should check the main parachute for control lines being too tight.

I. GENERAL					
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT MC-130	5. ACFT SER NO.	
6. OPERATION/EXERCISE		7. DZ AND LOCATION		8. DATE AND TIME	
9. ACFT ALTITUDE (Feet) 25,000 MSL	10. ACFT SPEED (Knots) 130 Knots	11. DZ ELEVATION (Feet) 5,200 MSL	12. SURFACE WINDS (Knots) 3 Knots	13. VISIBILITY (Feet/Miles) Unlimited	
II. PERSONNEL					
14. NAME (Last, First, MI), GRADE, SSAN, & UNIT		15. EQUIPMENT WORN BY JUMPER MC-4/02/Rucksack		16. JUMPER'S POSITION IN ACFT 7 of 10	
17. TYPE PARACHUTE (Specify) MC-4	18. TYPE MALFUNCTION				19. NO. JUMPS 250+
	SEMI-INVERSION	INVERSION	CIGARETTE ROLL	OTHER (SPECIFY)	
	PILOT CHUTE	BLOWN SECTION	BROKEN SUSPENSION LINE	Broken Control Line	
20. TYPE OF RESERVE MC-4	21. RESERVE FUNCTIONED PROPERLY (If "No" explain in item 31) <input type="checkbox"/> YES <input type="checkbox"/> NO		22. RESULTING INJURY None		

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)

This was a HAHO jump. Due to the altitude of the opening, the malfunction was not seen from the ground.

32. CAUSE OF MALFUNCTION/FAILURE (If more space is needed, continue on reverse.)

Canopy was never recovered, therefore, it could not be inspected. Cause of the malfunction is speculative. High altitude DZs combined with high altitude jumps commonly break control lines. Jumper states he had a very hard opening (common with high altitude DZs). This could be a possible cause.

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ANALYSIS: 44

WHAT WAS THE MALFUNCTION?

Broken control lines.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

Worn control lines. High altitude opening commonly break control lines.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

Packer should check for worn control lines.

TAR&M/SA VOL III

I. GENERAL					
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C-130	5. ACFT SER NO.	
6. OPERATION/EXERCISE		7. DZ AND LOCATION		8. DATE AND TIME	
9. ACFT ALTITUDE (Feet) 800 Feet AGL	10. ACFT SPEED (Knots) 130 Knots	11. DZ ELEVATION (Feet) Unknown	12. SURFACE WINDS (Knots) 3-5 Knots	13. VISIBILITY (Feet/Miles) Night 2002	
II. PERSONNEL					
14. NAME (Last, First, MI), GRADE, SSAN, & UNIT		15. EQUIPMENT WORN BY JUMPER LVB, Assault Pack, M-1950 (Mod/Saw)		16. JUMPER'S POSITION IN ACFT 1/6 Left Door	
17. TYPE PARACHUTE (Specify) T-10C Personnel Parachute	18. TYPE MALFUNCTION				19. NO. JUMPS 25
	SEMI-INVERSION	INVERSION	CIGARETTE ROLL	OTHER (SPECIFY)	
	PILOT CHUTE	BLOWN SECTION	BROKEN SUSPENSION LINE	Severed Static Line	
20. TYPE OF RESERVE 24 Foot Troop Chest Reserve	21. RESERVE FUNCTIONED PROPERLY (If "No" explain in item 31) <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		22. RESULTING INJURY None		

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)	
<p>Jumper exited left door as 6th jumper, experienced twists, and flipped through riser assembly. At this point, the jumper had suspension lines around his legs. The jumper went into emergency procedures for a total malfunction. His main never fully deployed and was not over head. Parachute's deployment bag and breakcord tie were still attached to the bridle loop.</p>	
32. CAUSE OF MALFUNCTION/FAILURE (If more space is needed, continue on reverse.)	
<p>After inspecting the static line, it was severed at 31 inches from the point of contact with the snap hook. The aircraft was inspected and the static line in question was reattached to the anchor line cable of the left door. The static measured out to a sharp ("V" shape) portion of the troop door. Suspected cause: Jumper had extremely weak exit, static was forced up and lodged into the V shape portion of the left door, severing the static line at 31 inches, and causing the main parachute not to complete the sequence of deployment.</p>	

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ANALYSIS: 45

WHAT WAS THE MALFUNCTION?

The malfunction was a broken static line.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

The cause was a poor exit causing the jumpers static line to ride low. Therefore allowing it to be cut by the V-shape on the lower portion of the jump door.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

In order to ensure this does not happen, the door exit is currently being reevaluated.

I. GENERAL					
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C130	5. ACFT SER NO.	
6. OPERATION/EXERCISE		7. DZ AND LOCATION		8. DATE AND TIME	
9. ACFT ALTITUDE (Feet) 1250	10. ACFT SPEED (Knots) 130	11. DZ ELEVATION (Feet) 385	12. SURFACE WINDS (Knots) 3 Knots	13. VISIBILITY (Feet/Miles) Unlimited	
II. PERSONNEL					
14. NAME (Last, First, MI), GRADE, SSAN, & UNIT		15. EQUIPMENT WORN BY JUMPER LCE, Alice Pack		16. JUMPER'S POSITION IN ACFT 2nd Pass/13	
17. TYPE PARACHUTE (Specify) MC1-1C	18. TYPE MALFUNCTION				19. NO. JUMPS 55
	SEMI-INVERSION	INVERSION	CIGARETTE ROLL	OTHER (SPECIFY)	
	PILOT CHUTE	BLOWN SECTION	BROKEN SUSPENSION LINE	Blown Sections	
20. TYPE OF RESERVE 24-Foot Troop Chest	21. RESERVE FUNCTIONED PROPERLY (If "No" explain in item 31) <input type="checkbox"/> YES <input type="checkbox"/> NO		22. RESULTING INJURY None		

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)

The jumper's exit was normal. His opening shock was a little harder than normal. During his second point of performance the jumper noticed the blown sections. He determined he was not falling faster than his fellow jumpers, and did not activate his reserve parachute. A TRI revealed a 20-inch by 28-inch piece of material missing from gore 14 sec 3, radial seam destroyed gore 16 sec 4 & 5, and gore 14 sec 3, the oriface modification was torn off gore 4, control line bridle broken in two places, and minor burns and holes in gores 3 through 10, and gores 13 through 22. Broken stitching was found in several places on the radial seam, but it could not be determined if it caused or was caused by the failure. The parachute had 20 jumps and no history of maintenance. This parachute along with another from a similar malfunction have been forwarded to Natick for testing.

32. CAUSE OF MALFUNCTION/FAILURE (If more space is needed, continue on reverse.)

No determination has been made pending results from Natick RD&E, at which time a follow-up will be submitted.

CONTINUED ON NEXT PAGE

ANALYSIS: 46

WHAT WAS THE MALFUNCTION?

The malfunction was a blown gore section.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

The cause of the malfunction was a material defect.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

Maintain proper aircraft speed and ensure the air channel is cleared during packing process.

I. GENERAL					
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C-130	5. ACFT SER NO.	
6. OPERATION/EXERCISE		7. DZ AND LOCATION		8. DATE AND TIME	
9. ACFT ALTITUDE (Feet) 1250 Feet	10. ACFT SPEED (Knots) 130 Knots	11. DZ ELEVATION (Feet) 280 Feet	12. SURFACE WINDS (Knots) 0-5 Knots	13. VISIBILITY (Feet/Miles) Clear	
II. PERSONNEL					
14. NAME (Last, First, MI), GRADE, SSAN, & UNIT		15. EQUIPMENT WORN BY JUMPER Alice Pack, Ballistic Helmet, M-1950 Weapons Case, Ankle Braces		16. JUMPER'S POSITION IN ACFT #4 Jumper L/Door	
17. TYPE PARACHUTE (Specify) T-10C	18. TYPE MALFUNCTION				19. NO. JUMPS 4
	SEMI-INVERSION	INVERSION	CIGARETTE ROLL	OTHER (SPECIFY)	
	PILOT CHUTE	BLOWN SECTION	BROKEN SUSPENSION LINE	Partial	
20. TYPE OF RESERVE MIRP	21. RESERVE FUNCTIONED PROPERLY (If "No" explain in item 31) <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		22. RESULTING INJURY Broken Foot (R)		

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)

Jumper exited aircraft and the main canopy did not fully deploy. Jumper descended faster than fellow jumpers. No observation of an activated reserve was made, however, at the scene the reserve was activated but the pilot parachute laid neatly folded 10 feet away from the jumper and the spring laid 10 feet away from the pilot parachute. Jumper claims to have activated reserve approximately 100 feet AGL.

32. CAUSE OF MALFUNCTION/FAILURE (If more space is needed, continue on reverse.)

Is possible when jumper exited aircraft he had a weak exit and flipped through his risers in addition with excessive twists which caused the main canopy not to fully deploy.

CONTINUED ON NEXT PAGE

ANALYSIS: 47

WHAT WAS THE MALFUNCTION?

The malfunction was the jumper flipped through his risers.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

The malfunction was caused by a weak exit.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

Jumper should attend remedial training.

I. GENERAL					
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C-130	5. ACFT SER NO.	
6. OPERATION/EXERCISE		7. DZ AND LOCATION		8. DATE AND TIME	
9. ACFT ALTITUDE (Feet) 1250	10. ACFT SPEED (Knots) 130	11. DZ ELEVATION (Feet) 387	12. SURFACE WINDS (Knots) Calm	13. VISIBILITY (Feet/Miles) Night	
II. PERSONNEL					
14. NAME (Last, First, MI), GRADE, SSAN, & UNIT		15. EQUIPMENT WORN BY JUMPER Alice Pack, LCE		16. JUMPER'S POSITION IN ACFT 2nd Pass/3rd	
17. TYPE PARACHUTE (Specify) MC1-1C	18. TYPE MALFUNCTION				19. NO. JUMPS 74
	SEMI-INVERSION	INVERSION	CIGARETTE ROLL	OTHER (SPECIFY)	
	PILOT CHUTE	BLOWN SECTION	BROKEN SUSPENSION LINE	Blown Gore	
20. TYPE OF RESERVE 24-Foot Troop Chest	21. RESERVE FUNCTIONED PROPERLY (If "No" explain in item 31) <input type="checkbox"/> YES <input type="checkbox"/> NO		22. RESULTING INJURY None		
31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.) The jumper stated he had twists after exit but came untwisted quickly. He then noticed he had a broken control line bridle and blown sections. He determined he was not falling faster than his fellow jumpers and did not activate his reserve. The jumper did not report the malfunction until the next day at shakeout so no onsite investigation was completed. The parachute had 18 jumps and no history of maintenance. This parachute was manufactured one year from the other parachute by the same manufacturer. This parachute was sent to Natick RD&E.					
32. CAUSE OF MALFUNCTION/FAILURE (If more space is needed, continue on reverse.) No suspected cause has been established pending the results from Natick. A follow-up will be submitted after results are received.					

CONTINUED ON NEXT PAGE

ANALYSIS: 48

WHAT WAS THE MALFUNCTION?

The malfunction was a blown gore section.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

The cause of the malfunction was a material defect.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

Quality deficiency report was sent.

TAR&M/SA VOL III

I. GENERAL					
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C-130	5. ACFT SER NO.	
6. OPERATION/EXERCISE		7. DZ AND LOCATION		8. DATE AND TIME	
9. ACFT ALTITUDE (Feet) 3500	10. ACFT SPEED (Knots) 130	11. DZ ELEVATION (Feet) 0	12. SURFACE WINDS (Knots) 030/8	13. VISIBILITY (Feet/Miles) 7+	
II. PERSONNEL					
14. NAME (Last, First, MI), GRADE, SSAN, & UNIT		15. EQUIPMENT WORN BY JUMPER Wet Suit, BDUs, pro-tec helmet, fins		16. JUMPER'S POSITION IN ACFT Third	
17. TYPE PARACHUTE (Specify) MC-5	18. TYPE MALFUNCTION				19. NO. JUMPS 27 (MFF)
	SEMI-INVERSION	INVERSION	CIGARETTE ROLL	OTHER (SPECIFY)	
	PILOT CHUTE	BLOWN SECTION	BROKEN SUSPENSION LINE	Suspected Bag Lock	
20. TYPE OF RESERVE	21. RESERVE FUNCTIONED PROPERLY (If "No" explain in item 31) <input type="checkbox"/> YES <input type="checkbox"/> NO		22. RESULTING INJURY None		

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)

Bag lock malfunction. Jumper attempted to clear for approximately 3 seconds then cut-away. Reserve immediately deployed.

32. CAUSE OF MALFUNCTION/FAILURE (If more space is needed, continue on reverse.)

Bag lock

CONTINUED ON NEXT PAGE

ANALYSIS: 49

WHAT WAS THE MALFUNCTION?

The malfunction was a bag lock.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

The cause of the malfunction was improper packing procedures.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

The packer needs to pack parachutes in accordance with all technical manuals.

I. GENERAL					
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C-130	5. ACFT SER NO.	
6. OPERATION/EXERCISE		7. DZ AND LOCATION		8. DATE AND TIME	
9. ACFT ALTITUDE (Feet) 1000 Feet AGL	10. ACFT SPEED (Knots) 130 Knots	11. DZ ELEVATION (Feet) 190 Feet	12. SURFACE WINDS (Knots) 320/3	13. VISIBILITY (Feet/Miles) 7 Miles	
II. PERSONNEL					
14. NAME (Last, First, MI), GRADE, SSAN, & UNIT		15. EQUIPMENT WORN BY JUMPER Rucksack, LBE, Kevlar		16. JUMPER'S POSITION IN ACFT #8, tailgate	
17. TYPE PARACHUTE (Specify) MC1-1C S/L Troop	18. TYPE MALFUNCTION				19. NO. JUMPS 244
	SEMI-INVERSION	INVERSION	CIGARETTE ROLL	OTHER (SPECIFY)	
	PILOT CHUTE	BLOWN SECTION	BROKEN SUSPENSION LINE	Broken left steering line	
20. TYPE OF RESERVE T-10	21. RESERVE FUNCTIONED PROPERLY (If "No" explain in item 31) <input type="checkbox"/> YES <input type="checkbox"/> NO		22. RESULTING INJURY None		

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)

Parachutist exited aircraft, #8 in the stick from the ramp. After feeling the opening shock he completed his canopy check and noticed that he had a broken left steering line. The parachutist used his right steering line and left rear riser to control his parachute during descent. He turned into the wind and lowered his rucksack at 200 feet, and landed without incident.

32. CAUSE OF MALFUNCTION/FAILURE (If more space is needed, continue on reverse.)

After speaking to all jumpers, all had a very hard opening. Leaving me to suspect possible aircraft air speed/weather.

CONTINUED ON NEXT PAGE

ANALYSIS: 50

WHAT WAS THE MALFUNCTION?

The malfunction was a broken left control line.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

The cause of the malfunction was excessive aircraft speed and the control line being too tight.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

1. Maintain proper aircraft speed.
2. Pack in accordance with manual.

TAR&M/SA VOL III

I. GENERAL					
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT H-60	5. ACFT SER NO.	
6. OPERATION/EXERCISE		7. DZ AND LOCATION		8. DATE AND TIME	
9. ACFT ALTITUDE (Feet) 9500	10. ACFT SPEED (Knots) 70 KIAS	11. DZ ELEVATION (Feet) Sea level	12. SURFACE WINDS (Knots) 5-10	13. VISIBILITY (Feet/Miles) Unlimited	
II. PERSONNEL					
14. NAME (Last, First, MI), GRADE, SSAN, & UNIT		15. EQUIPMENT WORN BY JUMPER None		16. JUMPER'S POSITION IN ACFT 3	
17. TYPE PARACHUTE (Specify) MT-1X	18. TYPE MALFUNCTION				19. NO. JUMPS 110
	SEMI-INVERSION	INVERSION	CIGARETTE ROLL	OTHER (SPECIFY)	
	PILOT CHUTE	BLOWN SECTION	BROKEN SUSPENSION LINE	Hung Slider	
20. TYPE OF RESERVE MT-1S	21. RESERVE FUNCTIONED PROPERLY (If "No" explain in item 31) <input type="checkbox"/> YES <input type="checkbox"/> NO		22. RESULTING INJURY None		

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)

Hung slider and end cell closure resulting in increased rate of descent.

32. CAUSE OF MALFUNCTION/FAILURE (If more space is needed, continue on reverse.)

Unknown

CONTINUED ON NEXT PAGE

ANALYSIS: 51

WHAT WAS THE MALFUNCTION?

Hung Slider.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

Improper packing procedures.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

Follow proper packing procedures.

TAR&M/SA VOL III

I. GENERAL					
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT H-60	5. ACFT SER NO.	
6. OPERATION/EXERCISE		7. DZ AND LOCATION		8. DATE AND TIME	
9. ACFT ALTITUDE (Feet) 12000	10. ACFT SPEED (Knots) 70 KIAS	11. DZ ELEVATION (Feet) Sea Level	12. SURFACE WINDS (Knots) 10 knots	13. VISIBILITY (Feet/Miles) Unlimited	
II. PERSONNEL					
14. NAME (Last, First, MI), GRADE, SSAN, & UNIT		15. EQUIPMENT WORN BY JUMPER None		16. JUMPER'S POSITION IN ACFT 2	
17. TYPE PARACHUTE (Specify) MT-1X	18. TYPE MALFUNCTION				19. NO. JUMPS 55
	SEMI-INVERSION	INVERSION	CIGARETTE ROLL	OTHER (SPECIFY)	
	PILOT CHUTE	BLOWN SECTION	BROKEN SUSPENSION LINE	Hung Slider	
20. TYPE OF RESERVE MT-1S	21. RESERVE FUNCTIONED PROPERLY (If "No" explain in item 31) <input type="checkbox"/> YES <input type="checkbox"/> NO		22. RESULTING INJURY None		

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.) Hung slider and end cell closure and twists resulting in increased rate of descent.	
32. CAUSE OF MALFUNCTION/FAILURE (If more space is needed, continue on reverse.) Unknown	

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ANALYSIS: 52

WHAT WAS THE MALFUNCTION?

Hung Slider.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

Improper packing procedures.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

Follow proper packing procedures.

TAR&M/SA VOL III

I. GENERAL					
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT H-60	5. ACFT SER NO.	
6. OPERATION/EXERCISE		7. DZ AND LOCATION	8. DATE AND TIME		
9. ACFT ALTITUDE (Feet) 12000	10. ACFT SPEED (Knots) 70 KIAS	11. DZ ELEVATION (Feet) Sea Level	12. SURFACE WINDS (Knots) 10 Knots	13. VISIBILITY (Feet/Miles) Unlimited	
II. PERSONNEL					
14. NAME (Last, First, MI), GRADE, SSAN, & UNIT		15. EQUIPMENT WORN BY JUMPER None	16. JUMPER'S POSITION IN ACFT 1		
17. TYPE PARACHUTE (Specify) MT-1X	18. TYPE MALFUNCTION				19. NO. JUMPS 200
	SEMI-INVERSION	INVERSION	CIGARETTE ROLL	OTHER (SPECIFY)	
	PILOT CHUTE	BLOWN SECTION	BROKEN SUSPENSION LINE	Hung Slider	
20. TYPE OF RESERVE MT-1S	21. RESERVE FUNCTIONED PROPERLY (If "No" explain in item 31) <input type="checkbox"/> YES <input type="checkbox"/> NO		22. RESULTING INJURY None		

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.) Hung slider and end cell closure resulting in increased rate of descent.
32. CAUSE OF MALFUNCTION/FAILURE (If more space is needed, continue on reverse.) Unknown

CONTINUED ON NEXT PAGE

ANALYSIS: 53

WHAT WAS THE MALFUNCTION?

Hung Slider.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

Improper packing procedures.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

Follow proper packing procedures.

I. GENERAL					
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT H-60	5. ACFT SER NO.	
6. OPERATION/EXERCISE		7. DZ AND LOCATION		8. DATE AND TIME	
9. ACFT ALTITUDE (Feet) 12000	10. ACFT SPEED (Knots) 70 KIAS	11. DZ ELEVATION (Feet) Sea Level	12. SURFACE WINDS (Knots) 10 Knots	13. VISIBILITY (Feet/Miles) Unlimited	
II. PERSONNEL					
14. NAME (Last, First, MI), GRADE, SSAN, & UNIT		15. EQUIPMENT WORN BY JUMPER None		16. JUMPER'S POSITION IN ACFT 4	
17. TYPE PARACHUTE (Specify) MT-1X	18. TYPE MALFUNCTION				19. NO. JUMPS 70
	SEMI-INVERSION	INVERSION	CIGARETTE ROLL	OTHER (SPECIFY)	
	PILOT CHUTE	BLOWN SECTION	BROKEN SUSPENSION LINE	Hung Slider	
20. TYPE OF RESERVE MT-1S	21. RESERVE FUNCTIONED PROPERLY (If "No" explain in item 31) <input type="checkbox"/> YES <input type="checkbox"/> NO		22. RESULTING INJURY None		

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)

Hung slider and end cell closure resulting in increased rate of descent.

32. CAUSE OF MALFUNCTION/FAILURE (If more space is needed, continue on reverse.)

Unknown

CONTINUED ON NEXT PAGE

ANALYSIS: 54

WHAT WAS THE MALFUNCTION?

Hung Slider

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

Improper packing procedures.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

Follow proper packing procedures.

I. GENERAL					
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C-130	5. ACFT SER NO.	
6. OPERATION/EXERCISE		7. DZ AND LOCATION		8. DATE AND TIME	
9. ACFT ALTITUDE (Feet) 25,000	10. ACFT SPEED (Knots) 140	11. DZ ELEVATION (Feet) 580	12. SURFACE WINDS (Knots) 4	13. VISIBILITY (Feet/Miles) Unlimited	
II. PERSONNEL					
14. NAME (Last, First, MI), GRADE, SSAN, & UNIT		15. EQUIPMENT WORN BY JUMPER Oxygen		16. JUMPER'S POSITION IN ACFT Third	
17. TYPE PARACHUTE (Specify) MC-4	18. TYPE MALFUNCTION				19. NO. JUMPS
	SEMI-INVERSION	INVERSION	CIGARETTE ROLL	OTHER (SPECIFY)	
	PILOT CHUTE	BLOWN SECTION	BROKEN SUSPENSION LINE	tangled suspension lines	
20. TYPE OF RESERVE MC-4	21. RESERVE FUNCTIONED PROPERLY (If "No" explain in item 31) <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		22. RESULTING INJURY		

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)

The main parachute suspension lines entangles with FF-2 cable upon opening and caused streamer. When main was jettisoned, it stayed entangled and caused the reserve not to open until jumper pulled it out of bag. Jumper landed with main parachute lines entangled with FF-2 cable and reserve lines.

32. CAUSE OF MALFUNCTION/FAILURE (If more space is needed, continue on reverse.)

Entanglement of main suspension lines with FF-2 cable.

CONTINUED ON NEXT PAGE

ANALYSIS: 55

WHAT WAS THE MALFUNCTION?

Main parachute lines entangled with the FF2 cable upon opening and caused a streamer.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

Poor body position.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

Jumper should attend remedial training.

I. GENERAL				
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT Twin Otter	5. ACFT SER NO.
6. OPERATION/EXERCISE		7. DZ AND LOCATION	8. DATE AND TIME	
9. ACFT ALTITUDE (Feet) 1500 Feet	10. ACFT SPEED (Knots) 80 Knots	11. DZ ELEVATION (Feet) 250 Feet	12. SURFACE WINDS (Knots) 06 Knots	13. VISIBILITY (Feet/Miles) Unlimited
II. PERSONNEL				
14. NAME (Last, First, MI), GRADE, SSAN, & UNIT		15. EQUIPMENT WORN BY JUMPER	16. JUMPER'S POSITION IN ACFT 1st 4th out	
17. TYPE PARACHUTE (Specify) MC1-1C	18. TYPE MALFUNCTION			19. NO. JUMPS 40
	SEMI-INVERSION	INVERSION	CIGARETTE ROLL	
	PILOT CHUTE	BLOWN SECTION	BROKEN SUSPENSION LINE	Entanglement
20. TYPE OF RESERVE T-10R	21. RESERVE FUNCTIONED PROPERLY (If "No" explain in item 31) <input type="checkbox"/> YES <input type="checkbox"/> NO		22. RESULTING INJURY None	

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)

Third and fourth jumper had good separation until about 300 feet when fourth jumper turned and ran with the wind. When fourth jumper started to run with the wind, he did not have enough time to slip away from the lower jumper (third jumper). At approximately 50 feet AGL both jumpers activated their reserves for a partial malfunction. When the reserves were activated, both just hit the ground due to low altitude.

32. CAUSE OF MALFUNCTION/FAILURE (If more space is needed, continue on reverse.)

Fourth jumper turned and ran with the wind not giving the lower jumper the right of way.

CONTINUED ON NEXT PAGE

ANALYSIS: 56

WHAT WAS THE MALFUNCTION?

The malfunction was a midair entanglement.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

The cause of the malfunction was improper canopy control.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

Adhere to the three rules of the air:

1. Maintain 50 foot separation from other jumpers.
2. Turn right to avoid collision.
3. Lower jumper has the right of way.

I. GENERAL					
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C-130	5. ACFT SER NO.	
6. OPERATION/EXERCISE		7. DZ AND LOCATION		8. DATE AND TIME	
9. ACFT ALTITUDE (Feet) 12,500 Feet AGL	10. ACFT SPEED (Knots) 130 Knots	11. DZ ELEVATION (Feet) 300 Feet	12. SURFACE WINDS (Knots) 7 Knots	13. VISIBILITY (Feet/Miles) Unlimited	
II. PERSONNEL					
14. NAME (Last, First, MI), GRADE, SSAN, & UNIT		15. EQUIPMENT WORN BY JUMPER ALICE Pack		16. JUMPER'S POSITION IN ACFT #1 jumper, ramp	
17. TYPE PARACHUTE (Specify) MC-4	18. TYPE MALFUNCTION				19. NO. JUMPS 75
	SEMI-INVERSION	INVERSION	CIGARETTE ROLL	OTHER (SPECIFY)	
	PILOT CHUTE	BLOWN SECTION	BROKEN SUSPENSION LINE	Floating Ripcord	
20. TYPE OF RESERVE MC-4	21. RESERVE FUNCTIONED PROPERLY (If "No" explain in item 31) <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		22. RESULTING INJURY None		

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)

Good exit, stable immediately, cleared air space at 6000 feet, waved off at 5000 feet and began pull sequence at 4000 feet AGL. Jumper stated he lost control of his ripcord grip on the first pull attempt. He found and traced his cable housing, but lost control again. Because of his low altitude, he immediately went into cut-away procedures and was under his reserve canopy at 2900 feet AGL. At 2500 feet the FF2 fired and pulled the main pins. The rear mounted ruck caught some suspension lines which secured his main and prevented it from falling away. The main did not come out of the D-bag.

32. CAUSE OF MALFUNCTION/FAILURE (If more space is needed, continue on reverse.)

As stated in block 31, the jumper lost control of his ripcord twice resulting in him executing cut-away procedures to avert any further incident. A pair of NOMEX gloves with an insert was worn by the jumper of which he normally jumps, so the gloves were ruled out as a cause.

CONTINUED ON NEXT PAGE

ANALYSIS: 57

WHAT WAS THE MALFUNCTION?

The malfunction was a floating ripcord.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

1. Possible loss of control as stated on the 1748.
2. Possible contact upon exit or during freefall.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

1. Execute proper separation during exit.
2. Check ripcord during freefall.
3. Maintain positive control of ripcord grip during pull sequence.

I. GENERAL					
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C-130	5. ACFT SER NO.	
6. OPERATION/EXERCISE		7. DZ AND LOCATION		8. DATE AND TIME	
9. ACFT ALTITUDE (Feet) 1250 Feet	10. ACFT SPEED (Knots) 130 Knots	11. DZ ELEVATION (Feet) 384 Feet	12. SURFACE WINDS (Knots) 08 Knots	13. VISIBILITY (Feet/Miles) Unlimited	
II. PERSONNEL					
14. NAME (Last, First, MI), GRADE, SSAN, & UNIT		15. EQUIPMENT WORN BY JUMPER Rucksack, M249		16. JUMPER'S POSITION IN ACFT 1st/4th out	
17. TYPE PARACHUTE (Specify) MC1-1C	18. TYPE MALFUNCTION				19. NO. JUMPS 12
	SEMI-INVERSION	INVERSION	CIGARETTE ROLL	OTHER (SPECIFY)	
	PILOT CHUTE	BLOWN SECTION	BROKEN SUSPENSION LINE	broken control line bridle	
20. TYPE OF RESERVE T-10R	21. RESERVE FUNCTIONED PROPERLY (If "No" explain in item 31) <input type="checkbox"/> YES <input type="checkbox"/> NO		22. RESULTING INJURY		

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)

Jumper stated that he had 6 to 7 twists. Once the twists were out he pulled on the left control line and it broke. He then looked up and saw 3 broken suspension lines. At that time he compared his rate of descent with fellow jumpers and decided he should activate his reserve for a partial malfunction. The reserve caught on the soldier's boot. He then attempted to pull the parachute up but noticed that he was too close to the ground. He then performed a PLF.

32. CAUSE OF MALFUNCTION/FAILURE (If more space is needed, continue on reverse.)

A broken control line bridle. After further inspection of the MC1-1C damage was found on gore 6 section 2. Burns were noted in a diagonal pattern approximately 4.5 inches in length. The burns ranged from 1/4 inch to 3 inches in length. The control line bridle was broken on the left side of gore 5, 3/8 of an inch from the stitching closest to the anti-inversion net. There was a burn at that location as well as on the right side of the control line bridle, 7 1/2 inches below the stitched portion. The burn was 4 inches in length. It appeared that gore 6 was overlapping into the control line bridle, binding the canopy. This caused the reefing ring to slide completely to the left while burning the control line bridle, which caused the control bridle to break.

CONTINUED ON NEXT PAGE

ANALYSIS: 58

WHAT WAS THE MALFUNCTION?

The malfunction was a broken control line bridle on the canopy.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

The cause was material bunched up inside the modification area which allowed the control line bridle to be burned.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

The packer should ensure proper packing procedures to correct this problem.

**SUMMARY OF
SUPPLY AND EQUIPMENT DROPS**

3D TRIANNUAL CY 1998

	PLATFORM LOAD		SINGLE CONTAINER		CDS		TOTAL	
Number of Drops	1424		588		684		2696	
Number of Malfunctions	15		15		7		37	
Percentage of Malfunctions	0.010		0.025		0.010		0.013	
Malfunction Phases:	IP	EF	IP	EF	IP	EF	IP	EF
Extraction	6	6	4	5	5	9	15	20
Deployment-Recovery	1	2	2	0	0	0	3	2
Release	0	0	0	0	0	0	0	0

IP-Incorrect Procedures

EF-Equipment Failure

**SUMMARY OF
PERSONNEL PARACHUTE JUMPS**

3D TRIANNUAL CY 1998

		C-17	C-130	C-141	OTHER	TOTAL
Nonmaneuverable	Number of Deployments	22	17,992	15,492	1,066	34,572
	Number of Malfunctions	0	4	0	0	4
	Percentage of Malfunctions	0.00	0.022	0.000	0.000	0.011
Maneuverable	Number of Deployments	119	9,948	722	4,875	15,664
	Number of Malfunctions	0	5	0	1	6
	Percentage of Malfunctions	0.00	0.050	0.00	0.020	0.038
Free-Fall	Number of Deployments	43	2,040	57	2,752	4,892
	Number of Malfunctions	0	6	0	1	7
	Percentage of Malfunctions	0.00	0.029	0.00	0.036	0.014
Total	Number of Deployments	184	29,980	16,271	8,799	55,128
	Number of Malfunctions	0	12	0	1	12
	Percentage of Malfunctions	0.00	0.040	0.00	0.011	0.021

**SUMMARY OF
PERSONNEL PARACHUTE MALFUNCTIONS**

3D TRIANNUAL CY 1998

	NON- MANEUVERABLE	MANEUVERABLE	FREE-FALL	RESERVE
Number of Deployments	34,572	15,664	4,892	18
Number of Malfunctions	4	5	12	0
Towed Jumper	0	0	0	0
Broken Static Line	1	0	0	0
Entanglement	0	2	1	0
Failed to Inflate	1*	0	1	0
Inversion	0	0	0	0
Pilot Chute	0	0	0	0
Semi-inversion	0	0	0	0
Suspension Lines	0	0	1	0
Other	1	5	9	0
Percentage of Malfunctions	0.011	0.031	0.024	0
Fatalities	0	0	0	0

*Injuries

**INJURIES OCCURRING ON PARACHUTE OPERATIONS
AS REPORTED ON DA FORM 285**

1 JULY - 30 SEPTEMBER 1998

	C-17	C-130	C-141	UNKNOWN	TOTAL
PLF-Related Injuries	0	7	5	34	41
Main Malfunction	0	0	0	0	0
Misrouting of Static Line	0	0	0	2	2
Entanglements	0	0	1	1	2
Tree Landings	0	1	1	1	3
In Aircraft	0	0	0	1	1
Hazards on Drop Zone	0	0	0	0	0
Other	0	3	0	7	10
Insufficient Information	0	0	0	0	0

AIRCRAFT MALFUNCTIONS

These malfunction reports are not included in the statistical data nor reflected in the percentage of malfunctions. All aircraft systems malfunctions which may have led to an abort or no-drop are constantly reviewed and analyzed for repeat or recurring trends and solutions. Corrective actions are recommended through Air Force maintenance systems.

PERSONNEL DROPS	
Improperly operating doors or ramps	0
Static line retriever	0
SUPPLY AND EQUIPMENT DROPS	
Rail locks	3
Improperly operating ADS	3
Improperly operating doors or ramps	0
Release mechanism	1
Electrical system	0
CONTAINER DROPS	
Rollers	0
Type XXVI gate	3
Static line retriever	7
Center Line Vertical Restraint (CVR)	3
TOTAL	20

HOT POOP

1. The following airdrop and sling load manuals will soon be published:

- a. FM 10-512, C5 (Rigging Typical Supply Loads).**
- b. FM 10-537, C5 (Rigging FARE).**
- c. FM 10-500-66 (Rigging 2-Litter Armored Ambulance).**
- d. FM 10-523 (Rigging Communication Control Vehicle).**
- e. FM 10-450-4, C1 (Single-Point Rigging Procedures).**

2. The Air Force has issued a message on the FCIF. A copy can be found [CLICK HERE](#)

3. On 20 Jan 99 a message was sent out from TRADOC on requesting new publications. It read:

Effective immediately, TRADOC will be printing a limited amount of each new submitted publication. It will include two copies for ATSC's library, and the amount requested by the preparing agencies. This includes publications currently at Fort Eustis, VA for printing. Preparing agencies needing additional paper copies, other than the initial issue, will be required to provide funds to reprint these publications. ATSC will notify preparing agencies when publications are available on the ADTL home page <http://www.atsc.army.mil/>